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ABSTRACT

A project was conducted to study impacts of vocational education research and development with special emphasis on the job placement and followup program in Indiana. The specific objectives were (1) to investigate the impact of R & D projects in vocational education and the conceptual and methodological problems in impact studies, and (2) to conduct a survey on the establishment, operation, and effectiveness of job placement and followup programs. A questionnaire form was developed to survey the status, operational problems, and effectiveness of programs. Forms were mailed to area vocational schools and postsecondary vocational and technical institutions and responses were analyzed. The highlights of the selected impact studies as summarized in this report provide insights into understanding of impacts of the R & D projects in vocational education. More intellectual efforts are required to solve the conceptual and methodological problems in determining the degree of impacts of R & D projects. The survey reveals the effectiveness of impacts of the placement and followup program upon students' job placement, graduates' followup, business and community, and program improvement, along with its status and operational problems. (Author/CT)

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TECHNICAL REPORT

IMPACTS OF RESEARCH AND DEVELOPMENT:

VOCATIONAL PLACEMENT AND FOLLOW-UP PROGRAMS IN INDIANA

Jin Eun Kim

School of Education, Indiana University
Bloomington, Indiana

U S DEPARTMENT OF HEALTH, EDUCATION & WELFARE
NATIONAL INSTITUTE OF EDUCATION

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CE 026 149

COST-EFFECTIVENESS STUDY PROJECTS

IN

VOCATIONAL EDUCATION

Project Director: Jin Eun Kim

1. *Development of A Cost-Effectiveness Analysis Model and Administrator's Manual for Secondary Vocational Programs. July 1, 1975 -- June 30, 1976.*

2. *Development of A Cost-Effectiveness/Benefit Analysis Model and User's Manual for Postsecondary Vocational Programs. July 1, 1976 -- October 31, 1977.*

3. *Diffusion of the Cost-Effectiveness Analysis System for Improving Secondary Vocational Program Management. January 1, 1977 -- March 31, 1978.*

4. *National Priority Training Program #1: Developmental Strategies and Analytical Techniques for Improving the Cost-Effectiveness of Vocational Programs. July 1, 1977 -- December 31, 1978.*

5. *Impacts of Vocational Education Research and Development Projects in Indiana: Placement and Follow-Up Programs. July 1, 1978 -- April 30, 1980.*

PROJECT INFORMATION

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Bloomington, Indiana

PROJECT STAFF: Principal Investigator and Project Director

Dr. Jin Eun Kim, Assistant Professor and Project Director
Cost-Effectiveness Studies in Vocational Education
School of Education
Indiana University-Bloomington

Graduate Assistants

Mr. Badawi Abo Bakr Abdeen
Department of Vocational Education

Ms. Yeon Sook Wee
Department of Instructional Systems Technology

Staff

Ms. Diana Dicus
Department Secretary

Ms. Susan Schneider
Project Secretary

The project reported in this publication was conducted under government sponsorship, and its author was encouraged to express freely his judgments in professional and technical matters. Points of view in the report do not necessarily represent policies of the funding agency.

ABSTRACT

Purpose. The purpose of this project was to study impacts of vocational education research and development with special emphasis on the job placement and follow-up program in Indiana. The specific objectives were: (1) to investigate the impact of R & D projects in vocational education and the conceptual and methodological problems in impact studies, and (2) to conduct a survey on the establishment, operation, and effectiveness of job placement and follow-up programs.

Procedures. In an effort to understand the impact of R & D projects in vocational education, nearly one hundred literature related to vocational R & D were searched through the on-line literature search of ERIC data base. Out of them, 30 research reports and articles were reviewed and finally three nationwide reports and four state level studies were selected for an intensive analysis. A total of seven full reports were analyzed in terms of the purpose, conceptualization, methodology, and findings of the studies. Additional effort was given to discuss the conceptual and methodological problems which are contained in the selected studies.

Based on the reviewed literature dealing with the concepts, activities, and administration of vocational placement and follow-up programs, a questionnaire form was developed to survey the status, operational problems, and effectiveness of the program. A total of 288 forms were mailed to 38 area vocational schools and 14 postsecondary vocational and technical institutions and 150 responses were analyzed during the fall semester of 1979.

Results. The highlights of the selected impact studies as summarized in this report provide insights into understanding of impacts of the R & D projects in vocational education. More intellectual efforts are required to solve the conceptual and methodological problems in determining the degree of impacts of R & D projects.

The survey reveals the effectiveness of impacts of the placement and follow-up program upon students' job placement, graduates' follow-up, business and community, and program improvement, along with its status and operational problems. The survey results are to be useful for state and local administrators and teachers in improving the effectiveness of R & D projects in general, as well as the guidance program in particular, for vocational education.

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April 1, 1980 J.E.K.

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CHAPTER I

INTRODUCTION

This report presents an analysis of impact studies on research and development projects in vocational education and a survey on impacts of placement and follow-up programs in the state of Indiana. The project was conducted at Indiana University-Bloomington with the financial support of the Indiana State Board of Vocational and Technical Education. The primary purpose of the project was to assess the impact of vocational education R & D projects with special emphasis on the placement and follow-up program. The objectives, procedures and organization of this report follow.

Objectives of the Project

The objectives of the project were: (1) to investigate the impact of R & D projects in vocational education, along with the conceptual and methodological problems in impact studies; and (2) to conduct a survey on the effectiveness of placement and follow-up programs in the area vocational schools and postsecondary institutions for vocational and technical education.

In conjunction with the State Board's guidance program, the survey aimed at investigating the status and problems in establishing and operating the placement and follow-up program, and determining the potential and actual impact of the program upon students, employers, and community development. The results from the survey will provide state and local

administrators with useful information for improving the effectiveness of the state's research and development programs in general, as well as its guidance program in vocational education in particular.

Procedures for the Project

To reach the objectives of the project, the following procedures were taken for: (1) analysis of impact studies, and (2) conduction of a survey on the establishment, operation, and effectiveness of the placement and follow-up program.

Analysis of Impact Studies

In an effort to understand the impact of research and development projects in vocational education, seven previously conducted impact and evaluation studies were reviewed to analyze the purpose, conceptualization, methodology, and findings of the studies. Through the on-line literature search of ERIC data base, nearly one hundred literature related to vocational education research and demonstration were searched with the help of the Vocational Education Information Services at Indiana University-Bloomington.

Out of them, thirty research reports and articles were reviewed, and finally three nationwide reports and four state level studies were selected for an intensive analysis. A total of seven full reports and studies were analyzed in terms of: (1) scope of the study topic, (2) sponsoring agency, (3) purpose of study, (4) conceptualization/framework for the study, (5) methodology/procedures, and (6) findings and recommendations. Their highlights are summarized into a table.

Furthermore, additional effort was given to discuss the conceptual and methodological problems which are contained in the selected studies.

Conduction of a Survey

Prior to developing a survey questionnaire form, the concepts of vocational placement and follow-up were reviewed along with model programs for vocational placement and follow-up which were supported by the Indiana State Board of Vocational and Technical Education. The purposes, activities and administration of the placement and follow-up program as appeared in the reviewed literature were incorporated into the development of a survey questionnaire form.

The survey form was developed to identify information on the establishment of the program (Questions 1 and 2), personnel (Question 3), activities (Questions 4, 5, 6, and 7), external supports and their helpfulness (Questions 8, 9, and 10), development and/or adoption of placement/follow-up materials and their usefulness (Questions 11, 12, 13, and 14), information utilization (Question 15), problems interfering with the effective operation (Question 16), and effectiveness of the program (Question 17). Question 17 includes 25 items of describing impacts on job placement, graduates' follow-up, employer and community, and program management which resulted from the placement/follow-up program. The effectiveness of each impact item was determined on a four-point scale -- Least Effective (1 point), Somewhat Effective (2 points), Very Effective (3 points), and Don't Know (0 points). The last open question requests suggestions for improving the placement/follow-up program (see Appendix C).

The questionnaire was reviewed by the State Board staff and student personnel staff at the Central Administrative Office of Indiana Vocational-Technical College. It was informally approved to be mailed to both secondary and postsecondary vocational administrators.

Five copies of the secondary school survey form were mailed to all of the 38 area vocational schools -- one copy for the director, two copies for two student personnel, and two copies for two vocational teachers respectively as assigned by the director. Seven copies of the postsecondary survey form were mailed to 14 postsecondary vocational-technical educational institutions -- one copy for the administrator, three copies for three student personnel, and three copies for three faculties respectively as assigned by the administrator. A total number of the mailing and returned forms are shown in Table I.

TABLE I

QUESTIONNAIRES MAILED AND RESPONSES RECEIVED

	Questionnaires Mailed	Number of Respondents	Response Rate (%)
Area Vocational Schools:	190	113	59.47
Vocational Directors	38	26	68.42
Student Personnel	76	45	59.21
Teachers	76	42	55.26
Postsecondary Institutions:	98	37	37.78
Administrators	14	3	21.43
Student Personnel	42	20	47.62
Faculty	42	14	33.33
Total	288	150	52.08

The collected data were analyzed in two ways. The responses to simple questions requesting the respondent to check appropriate elements were counted to compute a portion of the responses. To determine the degree of seriousness of the problems and effectiveness of impact items, each response was weighted by three, two, one, and zero points and a weighted average point was computed by dividing the total number of points by the number of respondents for each element.

Organization of the Report

This report consists of four chapters. Chapter II presents an analysis of impact studies of R & D projects in vocational education. It describes federal supports for vocational education R & D, reviews seven selected impact studies and discusses conceptual and methodological problems in the impact studies.

Chapter III describes the concept of the vocational placement and follow-up program and state-funded vocational placement and follow-up projects, and it reports a survey on impacts of placement and follow-up programs in the state of Indiana.

Chapter IV draws conclusions from the survey and makes recommendations. This final chapter is followed by the lists of references and appendices.

CHAPTER II

IMPACT STUDIES OF R & D PROJECTS IN VOCATIONAL EDUCATION

This chapter describes legislative acts to authorize the federal support for research and development in vocational education. Then seven selected impact studies at both the national and state levels were reviewed to analyze the objectives of, approaches to, and results from, the respective studies. Additional effort was given to discuss problems in impact studies.

Federal Support for R & D in Vocational Education

The authorization of federal support for vocational education was originated from the Smith Hughes Act of 1917. The first legislation, however, which was enacted to support research and development for vocational education, was the George Barden Act of 1946 when it authorized funding for guidance, teacher training, and research. Following this legislation, the federal funding was made available, but limited to small studies in scale or graduate research which was conducted for teacher and other professional staff training purposes.

Beginning with the Smith Hughes Act of 1917, as the demand and support for vocational education increased, so did the need for research and development to tackle vocational education problems on a nationwide scale. The envision of systematic, broader R & D programs was eventually reflected in the Vocational Education Act of 1963 (Public Law 88-210).

The Vocational Education Act of 1963

As the landmark legislation for vocational education research and development, this Act provided broad provisions for research, training, experimental, demonstration or pilot programs needed to achieve its purpose. Section 4(c) authorized funding these programs at the discretion of the Commissioner of Education with ten (10) percent of the total funds appropriated under the Act, which shifted focus on educational programs designed to meet the needs of special populations of people rather than upon occupational areas.

To build the capacity for research and development, several new institutions were established with federal funds. The Center for Research and Leadership Development in Vocational and Technical Education, and Educational Resources Information Center (ERIC) Clearinghouse on Vocational and Technical Education were established at The Ohio State University; and the Center for Occupational Education was established at North Carolina University in 1965. At the same time, research coordinating units were created at universities or state departments of education in most of the states. From the same source, funds were also allocated for such research priorities as program evaluation, curriculum improvement, resources development, guidance and career development, organization and administration, and new careers.

Instead of exciting expectations, the tide turned against vocational research and development, for Congress declined to continue the full allocation of authorized funds for the R & D programs. This circumstance forced to close out or drastically reduce some of the institutional programs. The research coordinating units were curtailed

until reauthorized under the 1968 Amendments (Public Law 90-576). The ERIC Clearinghouse on Vocational and Technical Education was transferred to the general ERIC program, whereas the Centers became more closely aligned with the university-based centers and regional educational laboratories in general education. All of those maneuvers were accompanied by an evolving program purchase policy in the U.S. Office of Education, as opposed to an institution capacity building posture (Magisos and Moore, 1977, p. 4).

Another reason was that Congress was disenchanted with government-sponsored research due to the lack of tangible impact on existing programs and on the development of new programs and methods as indicated in the Senate Committee's Report on Labor and Public Welfare (Report No. 1386, 90th Congress, 2nd Session). The most serious weakness which the Committee identified in the research provisions of the 1963 Act was the insufficiency of legislative guidance; whereas the most significant accomplishment of the research intent was a recognition of the need for, and the identification of individuals capable of carrying out research. Under such circumstances, the 1968 Vocational Education Amendments were enacted to authorize continuous support for vocational education research and development, but in another form.

The Vocational Education Amendments of 1968

Like the 1963 Amendments, the 1968 Amendments authorized ten (10) percent of the total appropriations to be spent on research. The Senate Committee reinforced this intent and declared that the section of the Act as designed to support vocational education research was to be the leading edge in vocational education finding for a new way of meeting new problems which arise in vocational education (Swanson, 1969, p. 73).

The 1968 Amendments authorized the support of research and development in vocational education under three major parts: (1) Part C funds for research and training in vocational education, of which each one-half was administered by the Commissioner of Education and by the states; (2) Part D funds for exemplary programs and pilot demonstration projects, of which each one-half was administered by the Commissioner of Education and by the states; and (3) Part I funds for curriculum development which 100 percent of the funds was administered by the Commissioner of Education.

Seventy-five percent of the Part C funds could be used for establishment and operation of the state research coordination unit (RCU). Accordingly, funds were provided to state agencies which resulted in many RCU's being moved from universities to state departments of education. With the exception of the RCU's, the 1968 Amendments made the federal government's program purchase policy a reality in that the previously established R & D institutions were forced to compete for the priviledge of conducting each project under a grant or, more commonly, a contract (Magisos and Moore, 1977, p. 4).

According to the Project Baseline Report (Miller and Miller, 1974), the total funding for research, development, and exemplary projects during the five-year period (1965-1969) was $61,850,850; and from 1970 through 1974, the funding under the 1968 Amendments was drastically increased to allot $90,844,000 for Part C, $77,000,000 for Part D, and $18,000,000 for Part I (p. 24).

The Education Amendments of 1976

The Education Amendments of 1976 (Public Law 94-482) maintained the intent of Parts C, D, and I of the 1968 Amendments, but required some changes in the Vocational Education Act of 1963. The vocational education title of the Act extended the current programs through fiscal year 1977 with the new programs beginning in fiscal year 1978 and authorized them for five years.

The new vocational education legislation stipulated that five (5) percent of the basic grant for vocational education was to be retained by the Commissioner of Education for programs of national significance, such as a national occupational information system, a national center for research in vocational education, other consolidated research projects, and training and development programs for vocational education personnel.

Under the new legislation, states were required to use twenty (20) percent of their basic grants for: (1) research, including state research coordinating units, (2) exemplary and innovative programs, (3) curriculum development, (4) vocational guidance and counseling, (5) vocational education personnel training, and (6) grants to overcome sex bias. It also stipulated that at least twenty (20) percent of the funds for the above six purposes was to be used for the vocational guidance and counseling function.

Regarding research and development authorization, the new legislation made it clear that programs were to have an immediacy of impact on teaching techniques and curriculum materials, and that recipients of project funds were to be held strictly accountable for program performance and delivery. The application for program improvement grants can not be supported unless

it demonstrates a reasonable probability for improving teaching techniques or curriculum materials that will be used in a substantial number of classrooms or other learning situations within five years after the termination date of the grant (Hjelm, 1977, pp. 17-18).

Review of Impact Studies in Vocational Education Research and Development

Seven selected impact studies were reviewed in terms of their purposes, conceptualization or framework, methodology or procedures, findings, and recommendations. Three nationwide studies were analyzed, along with four reports which were made on impacts of research and development projects in vocational education at the state level. The highlights of these studies are summarized in Table II.

The Baseline Supplemental Report (Miller and Miller, 1974)

This report was made on impact of vocational education research at the federal and state levels, which was conducted as a part of the Project Baseline Project at Northern Arizona University under the directorship of Dr. Arthur M. Lee. In an effort to demonstrate information pertaining to the nationwide impact of vocational education R & D projects funded during the nine-year period (1965-1973), first, this report describes major impact projects under six classified topics: (1) developing and restructuring vocational curriculum, (2) developing pre-vocational curricula, (3) vocational information and guidance systems, (4) management information systems, (5) the development of career education, and (6) statewide commitment.

Second, the reporters attempted to analyze the scope of impact, system levels, and problem levels, with the purpose of demonstrating intended impacts of sample projects as funded under Parts C, D, and I. The nature of impact of the projects was deduced from the descriptive information.

The purpose. The purpose of this report was to demonstrate some information and evidence about the impact of programs funded under the research and development portions of the Vocational Education Act of 1963 and the Amendments of 1968. But it was not their intention to present a complete exposition of all the major projects occurring around the United States as a result of federal research grants due to time and cost constraints.

Conceptualization/framework. An analytical scheme of impacts of R & D programs was developed to categorize the federal and state administered vocational education R & D projects. Type of impact was classified into intended and actual impacts; scope of intended impact was defined by the governmental level of impact (local, state, and national); and system level of impact was classified into instructional, administrative, and policy levels. For research-related activities (Part C), five major steps in research were used to classify the various programs funded by problem levels of identification, clarification, solution, implementation, and evaluation. Using three components of the impact scope, system levels of impact, and problem levels of research, a tri-dimensional scheme has been developed for the classification of intended impact of state-administered Part C programs.

TABLE II

A SUMMARY OF THE IMPACT STUDIES ON RESEARCH AND DEVELOPMENT PROJECTS IN VOCATIONAL EDUCATION

	NATIONWIDE STUDIES		
	Baseline Project (1974)	Development Associates (1975)	COVERD Report (1976)
Scope of the Study Topic	R & D programs funded by the USOE during 1965-1973 period.	Exemplary projects funded by the USOE for first round of career education, during 1970-1972 period.	R & D programs funded by the USOE during 1965-1974 period.
Sponsoring Agency	USOE and National Advisory Council for Vocational Education	Office of Planning, Budgeting, and Education, USOE	USOE/BOAE
Purpose of Study	To demonstrate the impact of vocational education research (a nine year effort) on the nation.	To evaluate the effectiveness of the first round of federally administered Part D projects and their components in terms of student outcomes attributable to project activities.	To provide federal legislators and policy-makers with the appropriate information and alternative strategies for improving vocational education R & D.
Conceptualization/ Framework for the Study	Type of impact was defined by intended and actual impacts. Using three components of the impact scope, system levels, and problem levels, a tri-dimensional scheme was conceptualized for the classification of vocational education R & D programs.	The impact of exemplary projects is defined as the effects of projects and their components on student outcomes as intended in the legislature. An evaluation framework was developed to analyze three program elements (program inputs, activities, and student outcomes) and to determine two sets of relationships among these program elements.	The impact of vocational education R & D was defined as their contributions to knowledge about vocational education and the effect of R & D on students as a target group. From the historical perspective, the committee reviewed the overall components, including the role of vocational education, federal legislation and funding for R & D activities, and the administration of vocational R & D in relation to the impact of the vocational education R & D program.
Methodology/ Procedures	• Analysis of federal funds for vocational education R & D by projects and states; • Review and analysis of USOE documents on R & D projects; and • Description of interpretation of the overall nine year effort.	• Review of reports; • On-site visits to 50 projects; • Interview with state staff and project directors; and • Develop and administer tests and questionnaires to students, teachers, and counselors.	• Review and analysis of 120 R & D reports and 15 commissioned papers, evaluation of reports and example projects; • Mail survey and telephone interviews; • On-site visits; and • Committee meetings and a series of hearings.
Findings/ Conclusions/ Recommendations	• $250 million was provided for vocational education R & D during the 1965-1974 period; • Most of the funds went to career education, whereas little money was used for problem solving at administrative and policy levels; • The nature of impact deduced from the descriptive information is encouraging; • The nature of impact developed from statistical data has not been too startling. • Impact (actual measurement of change) should be required as a part of all projects; • A clear priority of intended project impact should be established each year for funds.	• In 37 of 50 projects (74%), the federal dollars expended were below the level planned; • 26% of the projects reported having students in all activities as required by USOE; • In many projects, the performance of activities could not be related to the stated objectives; • Based on students' responses, the greatest impact was at the elementary level; • On a project-by-project basis, the input on students was small; • There was not a clear set of relationships between activities and student outcomes. • Based on the findings, some conclusions were made concerning key concepts, budget records, participation in projects, and operation of the projects.	• Vocational education R & D of the past decade has not had documented, widespread impact; • There were insufficient data to allow for a comprehensive evaluation of vocational education and its R & D; • Vocational education R & D is relatively new and it faces many difficulties; • Vocational education R & D has added to the body of knowledge about vocational education and its students; • Funding for vocational education R & D has increased research capacity by establishing national and state institutions. • Several interrelated strategies were recommended to the federal funding agencies for a comprehensive evaluation of vocational education R & D.

TABLE II, continued

STATE LEVEL STUDIES

American Management Center (1972)	McCastin and Walton (1974)	Ramp (1976)	Gustafson and Laferte (1977)
R & D projects funded by the Pennsylvania RCU during 1965-1972 period.	Research and exemplary projects funded by both the Wisconsin RCU and the state DPI during 1966-1973.	R & D projects funded by the Illinois RDU during 1969-1976 period.	Exemplary programs funded by the Vermont RCU during the 1970-1977 period.
RCU/BVTCE Pennsylvania State Department of Education	RCU, Wisconsin State Board of Vocational, Technical, and Adult Education	RDU/Department of Adult, Vocational and Technical Education	RCU/DVTE Vermont State Department of Education
To determine the impact of vocational education research on educational practice in Pennsylvania.	To determine the impact of vocational education research and exemplary projects in Wisconsin.	To determine the extent of product utilization, project personnel's professional development, and effectiveness of the RDU services in Illinois.	To determine the long-range impact of vocational education exemplary projects in Vermont.
The impact of research projects was defined as the effect such projects have on educational practices. It was rated on a seven-point scale and at five levels in scope. The study included a survey of factors affecting impact as well as the determination of the impact of vocational education research projects.	The impact of research and exemplary projects was conceptualized into three kinds of project impact, participant impact, and institutional impact. In addition to these impacts, the study attempted to determine the degree of the funding agency's assistance, monetary support, and impact on occupational education and administrative structure and procedures.	The impact of R & D projects was focused upon target groups and those persons who have been involved with the projects. It was determined by the extent of product utilization and influence on professional development of the project personnel.	The impact of exemplary projects was classified into internal impact and external impact. Each category was rated by four levels of utilization of the products. The six indicators of exemplary vocational program impact as appeared in the 1968 Amendments was adopted in the study.
• Identification of all RCU funded projects; • Questionnaire survey; • On-site visits and interviews; and • Use of statistical procedures.	• Questionnaire survey to project directors and students; and • On-site visits and interviews.	• Mailed survey, personal and telephone interviews with former project personnel; • Mailed survey to 336 local educational administrators.	• Review of 29 projects and related literature; • On-site visits and interview with administrators, teachers, students, and project directors.
• The impact of R & D projects tended to be limited to local geographic areas; • Projects had positive influence on vocational and technical education practices; • There were slight positive changes in attitude of participants in the projects; • There were differences among projects in terms of community type and size, program type, funding level, students' identification, and trained teachers; • RCU funding had the strongest influences on outcomes among all the projects.	• One-half to two-thirds of the respondents indicated that their products were in use; • There was little awareness of R & D projects in other districts; • Participants had both moderate attitudes and performance levels; • The RCU has had moderate and substantial impact on occupational education; • The DPI sponsored R & D projects had at least moderate and possibly substantial impact.	• It was impossible to obtain an accurate assessment regarding the extent of project products utilization; • At least 40,000 copies of printed project materials have been distributed; • More than 11,000 individual schools have been involved with the 116 project activities; • Awareness of all funded project activities by local school leaders was generally low; and • About three-fourths of the project personnel responded that involvement with funded projects had been beneficial in their professional careers. • Based on data received and interview comments, several recommendations were made with regard to operating procedures for the R & D program.	• 52% of the projects continued in operation after the termination of funding; • 17% of the projects had impact on other schools; • Only two projects utilized student growth measures to assess program impact; • No relationship was found between the funding level and the program impact, between the size of project staff and program impact, and between project duration and program impact; • More identifiable impact on students occurs when the student population is well defined and small; • Programs with effective project directors had impact. • Several recommendations were made to improve impact of exemplary programs in vocational education.

Procedures. First, distribution of federal funds for vocational education research and development to the states under the 1968 Amendments were tabulated to show the number of projects conducted and total federal funds received by the respective states. Based on USOE documents, expenditure profiles were summarized by category for each year. The projects were reviewed to describe original impact and current impact as defined by having a considerable influence on the educational system. Finally, the report summarizes a descriptive interpretation of the overall nine-year effort.

Findings. Since 1965, when the first fundings for research and development in vocational education were provided under the 1963 Act, a total of nearly 250 million dollars was spent for research projects, exemplary projects, and curriculum development in order to meet the expanding role of formal vocational education. Some major findings are summarized below.

- The nature of impact deduced from the descriptive information was made available to be encouraging. For the given amount of money available, significant progress has been made in such areas as management information systems, curriculum coordination, task analysis procedures, performance objectives, and guidance systems.

- The nature of the impact developed from the statistical data available has not been too startling, and this may be its most serious criticism.

- Based on the data generated from Part C, D, and I programs funded, little research money has been directed into questions concerning the problems of the acceptability of vocational education at the administrative and policy levels of the educational system.

- Most of the funds went to career education programs, the next highest funding was for in-school vocational students; and the least amounts were directed to the development of out-of-school youth programs and improved relations of the schools with business, industry and labor.

Suggestions. Some suggestions were made in regard to impact of research and development: (1) impact -- actual measurement of change -- should be required as a part of all projects, with teeth built in and funding provided; and (2) a yearly priority of intended project impact should be clearly established for available funds under such general areas of appropriation as research and development.

Evaluation of Vocational Exemplary Projects (Development Associates, 1975)

Part D of the 1968 Amendments authorized to provide for the funding of exemplary projects which represent new ways to create a bridge between school and earning a living for young people. Between June 1970 and July 1972, the Division of Vocational-Technical Education, USOE awarded 61 project grants covering approximately $120,000 a year for three years to institutions in each state and the District of Columbia. The projects funded during this period constituted the first round of Part D funding and were considered to be the earliest efforts for the federal government to implement the concept of career education on a comprehensive basis (Development Associates, p. 1).

In an effort to improve the implementation of the Part D program, the Development Associates, Inc. conducted an evaluation study of vocational exemplary programs which was funded by the Office of Planning and Budgeting, and Evaluation, USOE. The basic thrust of the study was to obtain information which would be of assistance in the continued operation

of Part D programs on career education which were administered directly by the federal government through the Division of Vocational and Technical Education in the U.S. Office of Education.

The purpose. The purpose of the study was to evaluate the effectiveness of the first round of federally administered Part D projects and their components in terms of the extent to which student outcomes attributable to project activities conformed to the legislative intent of Part D funds. Specifically, this study included: (1) a cost analysis of each federal discretionary project covering the three-year period of Part D funding with focus on the relation of cost to student outcomes and project process measures; (2) assessment of the influence of projects and their components on other schools and school systems in their states; and (3) a descriptive study and analysis of projects supported by state administered Part D funds, paying particular attention to their estimated impact and different state allocation strategies.

Conceptualization/framework. The impact of federally administered exemplary projects was defined in two ways: (1) the extent to which student outcomes were attributable to project activities as intended in the Part D legislature; and (2) the influence of projects and their components on other schools and school systems in their states. For this study, an evaluation framework was developed to analyze three program elements: (1) federal program inputs, (2) federally expected project activities, and (3) federally expected student outcomes; and to determine two sets of process relationships among these program elements.

Methodology. The study began in June 1973 and was completed in March 1975. Of 61 projects, 50 were selected for on-site review and interviews, and questionnaires were used to gather data from state staff, local project personnel, and school teachers and counselors, and students through the following procedures:

- Review of the related reports and available documents.
- On-site visits to 50 projects and state department of education.
- Interview with the state directors of vocational education, RCU staff, and local project directors regarding the federally administered and state administered Part D projects.
- Development and administration of questionnaires and tests to both 4,632 participating students and 4,043 non-participating students in grades 6, 9, and 12.
- Questionnaire survey to randomly sampled 1,433 teachers and 229 counselors.

Findings. The major findings are summarized in the following:

- Taking the three years in the aggregate and considering both expenditures and the legislative expectation that fund would be expended over a three-year time period, it was found that in 37 of 50 projects visited (74%), the federal dollars expended were below the level planned.
- While most projects reported students in most of the USOE required activities at some point during the three years, relatively few (26%) reported having students in all activities.
- A comparison between stated objectives of projects and activity categories indicated that in many projects the performance of activities could not be related to the stated objectives.
- Based on analyses of student responses across all projects, the greatest impact of the Part D program was at the elementary level. Generally, the program appeared to have had less impact on students at the 9th grade level; at the 12th grade level, impact was less than at the 9th for two sampling groups and greater for the other two.

- On a project-by-project basis, the impact of the program on students was small, with the bulk of favorable outcomes in each student group confined to a small group of projects.

- The search for relationship between the outcomes and selected project treatment indicators did not provide a clear set of relationships between activity or treatment indicators and student outcomes.

Conclusions. Based on their findings, the researcher made the following conclusions:

- The definition of key terms and concepts was neither precise nor consistent at either the federal or local levels.

- Budgets and expenditure records typically were based on "line-item" rather than programmatic activity categories. Determination of activity costs was very difficult.

- Similarly, USOE did not use fiscal data as management indicators.

- The evidence strongly indicates that exemplary programs require considerable start-up activity and time.

- Generally, participants in the projects were exposed more to visitors in their classrooms who discussed careers, and went on more field trips to learn about jobs, than non-participants.

- The number of different approaches to building a bridge between school and earning a living undertaken by the first round projects was limited. Fewer than half of the projects had work experience or skill training activities.

- The primary focus of round one was elementary and secondary familiarization and orientation. Most of the total funds and most of the student participants were engaged in such activities.

- To assist college and non-college bound students in obtaining employment, the USOE policy paper indicated that projects should provide specific training in job entry skills to students not previously enrolled in vocational programs just prior to the time that they leave school. The data appears to indicate that most projects extended such training only to the non-college bound.

- The projects typically did not assist students in securing employment, either during school or upon graduation.

- The student responses indicated that guidance and counseling at the high school level was viewed by students as helpful to them. The data also indicated that a great many students did not feel they had sufficient opportunity to receive assistance from their counselors and they would have liked to have increased their contacts.

Assessing Vocational Education R & D (Committee on Vocational Education Research and Development, 1976)

The Committee on Vocational Education Research and Development (COVERD) was formed by the National Academy Sciences in 1974 to perform two tasks for the U.S. Office of Education: (1) to review and assess the R & D activities sponsored by the Office of Education under the authority of the Vocational Education Act of 1963, as amended in 1968; (2) to recommend changes in R & D policies and programs for the coming decade. Being concerned with an overall picture of the federally funded vocational education R & D programs, the Committee and its staff gathered information from a wide variety of sources. Based upon the available information and through the group process, the Committee assessed the effectiveness of R & D programs and recommended several interrelated strategies for a comprehensive evaluation and administration of the vocational education R & D program.

The purposes. The purpose of the report was to provide federal legislators and policy-makers with the appropriate information and alternative strategies for evaluation and management of the R & D program which are necessary for improving vocational education. As a policy study, the primary effort was focused on two questions: (1) What contributions

have been made by R & D to knowledge about vocational education?, and (2) What has been the impact of R & D on students?

Conceptualization/framework. This study focused on "contributions" of vocational education R & D to the development of knowledge about vocational education and their impact on students as the target group. From the historical perspective, the Committee reviewed the changing focus of vocational education, federal legislation and funding for educational research and the administration of R & D in conjunction with the impact of vocational education R & D programs.

Procedures. The 11 members of COVERD were selected according to their special competence and representation of R & D, vocational education, and related fields. Their work was supported by Academy staff, consultants, and USOE program administrators. They used the following procedures:

- Reviewing about 120 reports of vocational R & D and other literature on nine major research topics: (1) career development and guidance, (2) students with special needs, (3) characteristics of students, (4) teacher education, (5) instructional techniques, (6) curriculum development, (7) labor market information, (8) administration of vocational education, and (9) evaluation of vocational education programs.
- Commissioning 15 papers covering a wide range of topics as prepared by prominent vocational educators and researchers.
- Referring to two major evaluation reports on the national R & D effort as well as examples of successful projects as cited by USOE, the Southwide Research Coordinating Council, and Committee members.
- Conducting a mail survey and a series of telephone interviews.

- Visiting ten state RCU's to gather information for assessing R & D and describing its administration, which were selected to be representative by region, by federal RCU allotment, by institutional location, and by administrative responsibility relative to Part D.

- Holding a series of hearings to gather first-hand information from many people knowledgeable about vocational education R & D. A total of 24 people participated.

- Synthesizing all of the input, through the group process, into the report.

The report was reviewed by a group other than the authors, and was approved by the Governing Board of the National Research Council. Initially, a draft of the report was made available for congressional committee hearings on the new vocational education legislation.

Findings. The Committee had difficulties in assessing the impact of the R & D program on students, especially in finding evidence that R & D has had a measurable impact and sufficient data for a rigorous evaluation of the R & D and its outcomes. Their concluding findings are summarized as follows:

- Vocational education R & D of the past decade has not had documented, widespread impact. Even the available data do not indicate that vocational education R & D findings and products have had an influence on the knowledge, skills, or employability of large numbers of students.

- There are insufficient data to allow for a comprehensive evaluation of vocational education or its supporting R & D. The impact of R & D has been measured often in terms of user acceptance, subjective and difficult to validate, and sometimes has been superficial and have failed to consider the long-term consequences of vocational education R & D.

- Vocational education R & D is relatively new and it faces many difficulties of all educational research and, in fact, of all social science research.

- Despite these difficulties, vocational education R & D has added to the body of knowledge about vocational education and its students by producing new programs, curriculum materials, and classroom techniques for use across the nation. Funding for vocational education R & D has also increased research capability in that national and state institutions are established to facilitate and coordinate the conduct of R & D in vocational education.

Recommendations. The Committee recommended several interrelated strategies that are necessary for a comprehensive evaluation of vocational education R & D. They are listed as follows:

- The goals and objectives of the R & D program, which should logically follow from the objectives of vocational education, should be clearly defined to measure the degree of success in attaining these objectives.

- In order to identify in the future contributions made by R & D, funding agencies should be able to provide access to final reports of all R & D projects.

- USOE should develop, with ample input from researchers and practitioners, a plan for evaluation of R & D that includes the collection of longitudinal data.

- USOE should determine exactly what factors are to be measured by evaluations. A comprehensive, evaluation data base is needed for determining what vocational education programs and R & D have been effective and should receive continued support.

- In order to measure the effectiveness of vocational education programs, USOE should collect long-term, follow-up data on a national sample of all people who enroll in vocational education programs and of comparable people who do not enroll.

- Because vocational education R & D is relatively new and rapidly changing, the ongoing program of R & D should be supplemented by the work of an advisory panel charged with studying all of vocational education, including its R & D.

The Impact of Vocational Education Research and Related Projects in Pennsylvania (American Management Center, Inc., 1972)

American Management Center (AMC) conducted an impact study for the Research Coordinating Unit (RCU) in the Bureau of Vocational, Technical and Continuing Education within the Pennsylvania State Department of Education. The major thrust of this study was to assess the impact of projects funded through the RCU on vocational education practices in Pennsylvania.

This study was concerned with 164 projects funded by the RCU during the period 1965-1972. They are classified into seven categories: (1) curriculum development, (2) research, (3) material development, (4) training programs for teachers and other professionals, (5) training and education of students and/or adults, (6) purchase and/or updating of equipment, and (7) work study. According to the number of the funded projects by category, one-third of all the projects were training programs, and it appeared that the emphasis of the funding was on programs that could have greater generalizability (e.g., curriculum, research, materials, training) to the field of vocational education than those with restrictive expectability (e.g., purchasing or equipment).

The purpose. The purpose of this study was to determine the impact of vocational education research on vocational education practice. Impact and factors affecting impact were the focus and design of the study.

Conceptualization/framework. The impact of research projects was defined as the effect such projects have on educational practices, and it was rated by a seven-point scale (7 -- Extreme positive influence; 6 -- Very positive; 5 -- Had some positive; 4 -- No influence; 3 -- Had some

negative influence; 2 -- Very negative influence; 1 -- Extreme negative influence. The influence on educational practices were also determined by selected levels such as: (1) building or neighborhood, (2) local community and/or district, (3) county/intermediate unit, (4) state, and (5) national. This study focused on the determination of the impact of research projects on educational practices. And also it included a survey of major factors contributing and hindering projects, examples of impact, sources of influence on decision-making, participants' satisfaction and attitude change by the project.

Procedures. The study was divided into five basic phases: (1) identification of all RCU funded projects from 1966 through March, 1972, and development of instruments to collect data on the projects; (2) piloting of the instruments, training of five interviewers, and a stratified random selection of projects for on-site visitations; (3) collection of data by mailing the instruments and interviews via on-site visits; (4) analysis of data using statistical procedures including Chi squares, multiple discriminant analysis, and multiple regression analysis; and (5) writing the report.

Findings. Some findings as related to the impact of research projects on educational practices are as follows:

- Impact in educational practices tended to be limited to local geographica areas. Curriculum and instructional procedures were the areas in which the projects had the most influence.
- Projects conducted by the RCU at the state level had positive influence on vocational-technical educational practices in the state of Pennsylvania.
- There were slight positive changes in attitude of participants in the projects. Interpersonal changes were the most positive.

- Most trainees were white, with blacks accounting for 7.5 percent of all trainees. There were almost no Puerto Rican trainees.

- There were differences among projects when grouped in terms of types of communities served, size of communities served, types of programs, degree of funding, ethnic identification of students trained, and whether programs trained teachers or students.

- Adequacy of the RCU funding, external and internal influences and assistance received had the strongest influences on outcomes among all the projects.

The Impact of Research and Exemplary Projects in Wisconsin (McCaslin and Walton, 1974)

The Center for Vocational Education, which is currently renamed as the National Center for Research in Vocational Education, The Ohio State University, assessed the impact of research and exemplary projects for the Research Coordinating Unit within the Wisconsin State Board of Vocational, Technical and Adult Education. The Wisconsin RCU was responsible for expending 60 percent of federal funds allocated to the state for postsecondary vocational education research; whereas the Wisconsin State Department of Public Instruction was responsible for expending 40 percent of federal research funds for secondary education.

During the period 1966-1973, approximately one and one-half million dollars of federal funds have been allocated to the state of Wisconsin for research and exemplary projects. The central problem area for this study was the establishment of observable relationships between these projects and actual outcomes.

The purpose. The primary purpose of the study was to determine the impact of research and exemplary projects in the state of Wisconsin. The study was designed to provide answers to the following questions:

- What has been the impact of research and exemplary activities funded by the Wisconsin RCU and DPI during the period January 1, 1966 to June 30, 1973?
- To what degree does the RCU and DPI assist participating educational institutions and agencies in preparing for and implementing change through research and exemplary activities?
- What is the degree of impact on occupational education and organizational and administrative procedures in Wisconsin and individual districts as a result of RCU research and exemplary activities?
- What are the patterns of monetary support for RCU and DPI sponsored research and exemplary projects?
- Is the approval process for proposed research and exemplary activities used by the RCU and DPI adequate?

Conceptualization/framework. The impact of research and exemplary projects was conceptualized into three parts: (1) project impact, (2) participant impact, and (3) institutional impact. The participant impact was defined as those cognitive, affective and/or behavioral effects on people as a result of participation in research or exemplary projects. It was operationally determined by the duration of the product's use, after funding termination, within and outside the district in which the report was produced. The institutional impact was measured by the degree of involvement of other institutions in the RCU sponsored project. In addition to the determination of these impacts, the study attempted to investigate the degree of impact of projects on occupational education as well as on organizational and administrative procedures, and the patterns of monetary support for R & D projects.

Methodology. This study consisted of four phases. Phase I included activities designed to establish an ongoing interface with the Wisconsin RCU and DPI personnel to develop final evaluation designs.

Phase II included development of the instruments and plans for data collection and analysis. Phase III dealt with collection of the needed data. Finally, Phase IV was directed toward analysis of the data and preparation of the final report.

Findings. The following findings are related to questions 1 and 3:

- With regard to the RCU funded projects, approximately one-half to two-thirds of the respondents indicated that the products, procedures and findings were in use.
- On-site visits to selected districts revealed little awareness of research and exemplary projects in other districts.
- The respondents indicated that they perceived that participants had both moderate attitudes and performance levels.
- These data tended to indicate that the RCU has had moderate to substantial impact of the research and/or exemplary projects it funded.
- Referring to the DPI funded projects, of the projects reported, approximately two-thirds were to have continued after funding by DPI terminated and nearly 90 percent of the projects were reported to still be in use.
- The project directors perceived moderate attitudes and performance of participants in the research and/or exemplary projects.
- Although the respondents indicated a high degree of involvement of other schools and with the research and/or exemplary projects, the selected on-site visits did not reveal the same pattern.
- The data collected tend to indicate that the DPI sponsored research and exemplary project funded had at least moderate and possibly substantial impact.
- Concerning the question 3, the respondents (VTAE research and district directors and selected State Board staff members) indicated that the impact of the RCU has had moderate impact on occupational education in Wisconsin. Further, of the type of research and exemplary reports funded, curriculum and special projects tended to be viewed as generating the highest degree of impact.

Research and Development Projects in Illinois (Ramp, 1976)

The Illinois Research Coordinating Unit (RCU) was established under the authorization of the 1963 Vocational Education Act. It was among the original group of 24 RCU's approved in 1965 by the U.S. Office of Education. In 1969, the name was changed to the Research and Development Unit in the Illinois Department of Adult, Vocational and Technical Education. The Illinois RDU sponsored the Southern Illinois University at Carbondale to conduct an impact study on research and exemplary activities in the state. This study was concerned with the impact of 116 research and exemplary projects funded by the Illinois Department of Adult, Vocational and Technical Education since the 1968 Amendments became effective.

The purpose. The purpose of the study was to evaluate the impact of research and exemplary projects. Three objectives were specified to: (1) determine the extent of utilization of products as developed by funded projects; (2) determine how project directors, principal investigators, and other personnel associated with the funded projects have been affected in their professional development by being involved in the funded projects; and (3) determine how educational personnel in the state of Illinois assess the services of the Research and Development Unit.

Conceptualization/framework. The impact of R & D projects was focused upon target populations and those persons who have been involved with the projects. It was determined by the extent of product utilization and influence on professional development. The extent of product utilization was determined by the frequency of indication of

tangible products, dissemination of product copies, consumers' awareness and utilization. The influence on professional development was measured by career change after the personnel involved in the projects.

Methodology. The study proceeded through four major phases. Data were collected by mailed survey, personal interview and telephone interview with former project directors and other associated personnel. Three hundred and thirty-six local educational leaders responded to a mailed questionnaire which was designed to survey information relative to their knowledge and use of the results from 116 R & D projects.

Conclusions. With regard to the R & D projects, the following conclusions were drawn:

- It was impossible to obtain an accurate assessment regarding the extent of project product utilization.
- It appears that at least 40,000 copies of printed project materials have been distributed to a wide range of educators.
- At least 7,500 individual persons have visited demonstration projects.
- More than 11,000 individual schools have in some way been involved with the 116 project activities.
- Awareness of all funded project activities by local school leaders was generally low.
- About three-fourths of the project personnel respondents indicated that involvement with funded projects had been beneficial to their professional careers.

Recommendations. Based on data received and interview comments, the following recommendations were made:

- Some system for regularly informing key persons at the local level should be found for dissemination of project information.

- Upon the completion of a project, some mechanism should be found for widespread statewide distribution and publicity.
- The RCU should institute a record keeping system for up-date information.
- Continue soliciting opinions from local school leaders in the development of state research priorities.
- A system for the dissemination of RFP's should be developed to assure that all local education leaders are informed.
- A standardized, precise and clearly stated format should be developed for proposal writers and for the final reporting process.
- Concise guidelines for the fiscal management of projects should be developed.
- The RDU practice of providing staff services to individual projects should be encouraged and continued.

Impact Study of Exemplary Vocational Programs in Vermont
(Gustafson and Laferte, 1977)

Since 1970, the Division of Vocational-Technical Education, Vermont State Department of Education, has funded more than 30 Part D exemplary projects in vocational education. These projects range in size from as little as $260 to as large as $69,250, and total nearly $560,000 with duration of a few months to three years in length. With new legislation governing vocational education being implemented on October 1, 1977, this study was conducted to provide useful guidance for the funding and administration of the new and expanded vocational program areas.

The purpose. The purpose of the study was to: (1) determine the long-range impact (planned and unforeseen) of some 30 previously funded exemplary projects in vocational education, and (2) develop a policy

analysis of the findings to provide those at the decision making levels with some factors which seem to enhance the impact of the funded projects.

Conceptualization/framework. The long-range impact (planned and unforeseen) of exemplary projects was divided into two categories of internal impact and external impact. The internal impact was rated by four levels: (1) project was completed, but no evidence of continued use of products is available, (2) project was completed and the products are being used by those who are involved in their development, (3) project was completed and the products have been strengthened, improved and expanded by those who were involved in their development, and (4) project was completed and the products are being used by those directly involved and other teachers within the school system.

The external impact was also rated by four levels, but in different form: (1) project results were not made available to other school districts, (2) dissemination of the project result to other school districts was completed, (3) another school(s) has utilized and implemented some of the products developed by the originally funded exemplary program, and (4) another school(s) had adopted the exemplary program substantially as it was developed and implemented by the grantee.

The six indicators of exemplary vocational program impact as appeared in the 1968 Amendments were adopted in the study. They are as follows:

(1) Exemplary program efforts become part of the regular vocational program.

(2) Dissemination of efforts and results to other schools or programs.

(3) Implementation of the program by other schools.

(4) Involvement of more local teachers and staff than were in the original program.

(5) Demonstrated student growth on assessment measures.

(6) Cooperative efforts between education-manpower-industry and the community.

Methodology. Given 29 projects, the case study approach was used to collect the data through on-site visits at each project location(s). An instrument was developed to assess the impact of 29 exemplary projects in relation to the six criteria. During the Spring of 1977, on-site visits were made to each of the project sites. Administrators, teachers and students who were affiliated with the project were interviewed. In addition, individuals having program responsibility at the state level were also interviewed. Each project was assigned to one of the four levels of internal and external impacts.

Findings. The major findings are listed as follows:

- In 15 of the 29 projects (52%), elements of the program continued in operation after the termination of funding.
- In ten of the 29 projects (34%), efforts at dissemination were identified.
- Five of the programs (17%) had impact on other schools.
- Ten programs (34%) had some success in involving more local teachers and staff than were in the original programs.
- Only two projects (7%) utilized student growth measures to assess the program impact.
- Thirteen projects (45%) indicated some community based activities.
- No relationship was found between the level of funding and the program impact.
- No relationship was found between the size of project staff and the program impact.

- More identifiable impact on students occurs when the student population is well defined and small.
- Programs with effective project directors had impact.
- All programs which experienced turnover of key personnel had little or no impact.
- No relationship was found between the project duration and the program impact.

Recommendations. The following recommendations were made to improve impact of the future exemplary programs in vocational education:

- Each program proposal should contain a plan for the adoption of successful components when funding ceases.
- Separate funding for dissemination and diffusion of the proven programs should be provided to successful projects. The State Department of Education should be a partner in this effort.
- Plans for the inclusion of other local teachers and administrators should be part of the program proposal.
- Those projects which work directly with students should have a clearly defined population and should measure their impact on these students.
- Involvement of local business and industry in project activities can result if these individuals are included in the planning and development of the project.
- The size of project funding requests should not be used as a factor in the selection of proposals for funding.
- The size of project staff should not be used as a factor in the selection of proposals for funding.
- When turnover of key project personnel takes place, the State Department of Education should immediately review the advisability of continued funding.
- The planned duration of a project should not be considered as a factor in the selection of a proposal for funding.
- The State Department of Education should review and make specific changes in its application review process.
- The State Department of Education should move rapidly to assume the role of program advocate providing more encouragement and technical assistance in developing projects.

Problems in Impact Studies

The reviewed studies attempted to identify positive evidences pertaining to the impact of vocational education R & D programs funded by the federal and state governments under the authority of the Vocational Education Act of 1963 and its amendments. Three studies were concerned with nationwide impact of federally funded R & D projects, and four studies were directed to determine statewide impact of vocational education R & D projects administered by state research coordinating units. All studies were sponsored by the respective funding agencies. Their purposes, conceptual frameworks, methodologies, and findings were summarized and some problems were discussed for the future impact study.

Purposes of the Studies

The Baseline Project and the COVERD report were oriented to the analysis of R & D policies in vocational education, whereas the other studies were concerned with evaluation of outcomes as resulted from vocational education R & D projects. Both the Development Associates' report and the Vermont study (Gustafson and Laferte, 1977) focused on only exemplary projects, while the other studies dealt not only with exemplary projects but also research and development projects as a whole. All the studies covered research and/or exemplary projects as funded by the federal or state agency during a certain time period.

The Baseline Project classified federally funded major R & D projects into six categories (Miller and Miller, 1974, pp. 2-17), and the Pennsylvania study classified 164 projects into seven categories (American Management Center, 1972, pp. 9-10). No classification was

made in the other studies. Although the study topic varied in scope, the main effort, common to all the studies, was given to investigate evidences on the intended or prescribed impact of the R & D program. Their effort was also directed toward only a positive side of the impact in the studies.

Conceptual Problems

In conceptualizing the impact of the R & D program, four questions might have been raised: (1) what is the "impact" of the R & D program?, (2) how is it determined?, (3) what factors are influencing the impact of the program?, and (4) what is the conceptual framework for the study?

The term impact was defined in different ways and with variation in its nature and target. It was defined as the effect or influence of research and/or exemplary projects on the nation (Baseline Project, 1974), on student outcomes as a target group (Development Associates, 1975; COVERD Report, 1976), on both target group and those who have been involved in the projects (McCastin and Walton, 1974; Ramp, 1976), or on educational practices (American Management Center, 1972). There is no clear-cut definition of the "impact" and no operational foundation on which the impact was made.

The definition of impact should be operationalized into measurable terms and its target groups should be specified according to the nature of the R & D project. For instance, the impact of research on teaching methods would be operationalized in terms of the extent to which the product would contribute to the "knowledge" of teaching method or change teachers' behavior. The development of a management information system should be expected to impact on administrators' managerial skills or behavior change rather than on the student outcome or on the nation. It would be impossible

to generate the overall impact of the R & D program without analysis of a single project or a group of a categorized similar projects on a project by project basis.

The type of impact was classified into intended and actual impacts (Baseline Project, 1974), or internal and external impacts (Gustafson and Laferte, 1977). The two kinds of impacts may be conceptually apart from each other. However, if intended impact be viewed as an expected goal of impact, actual impact can be considered as a goal attainment degree of impact. In other words, the impact can be conceptualized into a singular measure rather than two separated ones of impact.

In regard to the second question, the degree of R & D impacts was described by different aspects, such as "their contribution to knowledge about vocational education" (COVERD Report, 1976) or three kinds of project impact, participant impact, and institutional impact (McCastin and Walton, 1974). It was also determined by the extent of product utilization and influence on professional development of the project personnel (Ramp, 1976), and four or five levels of dissemination of R & D products in scope (American Management Center, 1972; Gustafson and Laferte, 1977). In determining the degree of impact, more intellectual efforts should have been made to define the expected effects as criteria on each target group which would be compared with the actual impact. Then it was possible to measure the degree of impact in terms of the level of effectiveness of the R & D program against the criteria.

The reviewed studies were directed neither to evaluate the quality of R & D projects nor to inquire institutional and environmental factors

affecting the impact of R & D projects. Among them, the Pennsylvania study (American Management Center, 1972) attempted to identify major factors contributing to and hindering the meeting of goals of the project in terms of administration, program, students, teacher/staff, materials, and others (p. 24). The other studies were concerned only with the administrative procedures of the R & D program at the federal and state government levels.

In analyzing the impact of applied research and demonstration projects in vocational education, Hu and Stromsdorfer (1975) concluded that although some demonstration projects have helped modify or improve instructional techniques, limits still exist: (1) lack of adequate research design or evaluation methodology, (2) abundance of descriptive studies, (3) weakness in survey technique, and (4) weakness of impact due to small sample size, limited population, or triviality of problem tested. This statement confirms that evaluation of the quality of each R & D project should be proceded by the assessment of the impact of the project.

Hull (1978) identified how administrative techniques or organizational arrangements were related to the continuation of the exemplary project on site when outside funds were no longer available. In assessing the impact of R & D projects, the inquiry of the environmental factors including the organizational and administrative variables may be necessary for understanding the situation surrounding the implementation of R & D products.

Referring to the last question, none of the reviewed studies, but Development Associates' Study, has developed a conceptual framework for the study. As previously indicated, all of the studies are weak in the conceptualization of the impact and in the association of factors influencing the implementation of R & D projects. The Development Associates developed

an evaluation framework for their study (pp. 13-20). The framework included four program elements: (1) federal goals, (2) federal inputs, (3) federally expected project activities, and (4) federally expected student outcomes; and three sets of relationships: (1) federal inputs to project activities, (2) project activities to student outcomes, and (3) student outcomes to federal goals. Basically being concerned with the inputs to, process or activities, and outcomes from, the exemplary program, it did not include intergovernmental relationships and social or environmental factors influencing the project activities and student outcomes. In spite of such a limitation, the framework was helpful for understanding the program elements and their relationship under study.

It must be difficult to conceptualize the complex characteristics of both the R & D project itself and the social environment around the educational reality. But the well defined conceptualization of these complex characteristics must be a prerequisite for systematic analysis and evaluation of the results from the R & D program and its impact on target groups in vocational education.

Methodological Problems

The reviewed studies can be classified into "policy analyses" and "outcome evaluations", according to the definitions of Williams (1971, pp. 12-13). As policy analyses, both the COVERD and the Baseline Project used a policy-oriented method and collection of techniques of synthesizing available information including the results of research to assess the effect of ongoing policy, and recommended alternative policy for improving vocational education R & D projects. The other studies employed outcome evaluation methods in measuring the overall impact of R & D projects.

Among the studies, only the Development Associates (1975) used control groups as counter parts of participating groups in the exemplary projects to determine differences in student outcomes between participating and nonparticipating groups. Most studies attempted to identify some positive influences of R & D projects which were perceived by project personnel themselves and/or by prospective consumers of R & D products. Project personnel's perception of the impact of their R & D projects might have been more subjective rather than objective in judgement, therefore their responses might have been somewhat biased toward positive effects of their projects. Most of the data were collected by a questionnaire survey, telephone conversations, and interviews through on-site visits rather than direct field observation of practices. The collection of data was made at one time period rather than on a longitudinal continuing basis.

It seems to be too broad and superficial to evaluate the massive effect of R & D projects as a whole. Special consideration should be given to indepth analysis of specific effects of a single project or a group of R & D projects in narrower scope. The time factor should be considered in determining the impact of R & D products as well as in disseminating the products.

Summary of Findings and Conclusions

The reviewed studies show positive effects of R & D projects in vocational education. Some findings were quite conclusive, indicating that the nature of impact deduced from the descriptive information was encouraging (Baseline Project, 1974); the greatest impact of the exemplary

program was at the elementary level (Development Associates, 1975); vocational education R & D has added to the body of knowledge about vocational education and its students (COVERD Report, 1976); and the impact of R & D projects tended to be limited to local geographical areas in Pennsylvania (American Management Center, 1972). Positive effects were also found on student outcomes, project personnel, and on occupational education practices. Federal funding for vocational education R & D, and state support through the RCU increased research capacity for improving the R & D program.

However, there are some limitations in interpreting the results. First of all, the findings were descriptive of the operation and influence of R & D projects which were perceived by project participants and prospective consumers. Most of the study was lacking direct observation and statistical significance tests of the impact of R & D projects. There was no indication of "how much" or what degrees of actual impacts of particular projects were made by comparing with targeted goals as expected for the respective projects. This limitation was due to constraints of conceptual and methodological problems as mentioned earlier.

Based on findings, recommendations were made for the federal and state agencies to improve the administration or operating procedures for the R & D program. The recommendations which were made in the COVERD Report were adopted to the 1976 Education Acts in the consolidation of research, demonstration, and curriculum development programs with national priorities, development of a management information system for

funded projects, establishment of national center for vocational education, authorization of research coordinating units in the states, and requirement of dissemination plan at the outset of projects.

Thus, the influence of impact studies was significant in improving the policy and administration of the R & D program. These initial efforts should be extended toward increasing the impact of R & D projects on the development of target groups in vocational education. The cooperative efforts of researchers and practitioners should be focused upon resulting in the maximum impact of R & D projects in vocational education.

Summary

In an effort to identify impacts of R & D projects in vocational education, seven related studies were reviewed to analyze their purposes, conceptual framework, methodology, and findings. The purpose of the reviewed studies was focused upon determining the impact of vocational education R & D projects, but some limitations were found in achieving this purpose.

Most of the studies attempted to identify influences or effectiveness of R & D projects as perceived by product developers themselves and/or by prospective consumers. They were lacking efforts for conceptualizing impacts of R & D products and their relationship with other factors influencing the impact of R & D products on the target groups of population. Their approaches were limited to a one-shot study rather than a longitudinal continuing study. Their evidences were determined by indirect methods such as mailing and/or telephone conversations rather than by the direct field observation of practices.

Due to these conceptual and methodological limitations, the studies failed to test statistical significance of the results, and findings were too general to determine the degree of impact of specific R & D projects. They described positive effects of R & D projects as a whole on students and educational practices and directed more attention toward the policy and administration of R & D projects rather than the effectiveness of R & D projects' impacts in vocational education.

CHAPTER III

IMPACTS OF VOCATIONAL PLACEMENT AND FOLLOW-UP PROGRAMS

This chapter describes concepts of placement and follow-up services as parts of a comprehensive system of vocational guidance and as an interactive process between the school system and employers. Then, it reviews the state-funded placement and follow-up programs which are being implemented throughout the state of Indiana, and presents a survey of their impacts on students' placement and follow-up, employers and community, and program improvement.

Concepts of Vocational Placement and Follow-Up

Vocational placement and follow-up services are conceptualized as parts of a comprehensive system of vocational guidance. Needs and organization for job placement and follow-up services are discussed below.

A Comprehensive Vocational Guidance Program

The importance of a comprehensive guidance program which includes placement and follow-up services has been stressed in professional publications for years. As early as the 1940's, Myers (1941) adopted such a standard definition of vocational guidance as "the process of assisting the individual to choose an occupation, prepare for it, enter upon, and progress in it" (p. 10), and proposed eight services to be included in a comprehensive program of vocational guidance as follows (pp. 104-107):

1. A vocational information service to provide the individual with needed information on occupations;

2. A self-inventory service to assist the individual in obtaining equally needed information pertaining to his own abilities, aptitudes, limitations, and personality traits;

3. A personal data collecting service to develop a school-record system for use by the counselor;

4. A counseling service to help the individual weigh and evaluate his personal assets and liabilities in relation to the opportunities and requirements of occupations that interest him;

5. A vocational preparatory service which is based on the assumption that a choice of occupation has been reached at least tentatively;

6. A placement or employment service to aid the individual who has been prepared to get off to a start by entering upon a vocation;

7. A follow-up adjustment service to aid the individual to make necessary or desirable readjustment after entering upon his vocation; and

8. A research service such as an occupational research and evaluative studies on the effectiveness of the other services by discovering the strength and weak points.

Among the eight services, the first five services have been well developed through the vocational guidance movement which was launched around the beginning of the 20th century. Counseling was first begun to assist individuals with vocational problems and its development has been forced through and by the mental hygiene movement, the testing movement, the child-study movement, compulsory education, personnel work in industry, federal government support, and professional organization (Stone and Shertzer, 1972, pp. 18-20).

As a pioneer, Parsons, often called the "father of guidance", founded the Vocational Bureau in Boston to assist young men and women in

making vocational choices based on their interests and aptitudes. His initial effort formulated the basis of what is known as the trait-and-factor approach to occupational choice, which emphasizes the matching of individuals with jobs. The majority of vocational guidance practitioners viewed the matching of individuals and jobs as a one-time event until the late 1940's.

Against this trend, vocational guidance turned toward new emphasis in the vocational development and choice movement (1950's-60's), and in the study of vocational behavior in the context of human development. From an empirical study of occupational choices, Ginzberg and his associates (1951) conclude that occupational choice is not a single decision, but a developmental process which takes place through the fantasy, tentative, and realistic periods at different age levels.

In 1953, Super summarizes current knowledge to formulate a comprehensive theory of vocational development, and states ten prepositions concerning individual differences, occupational multi-potentiality of the individual, occupational ability patterns, identification with parents, continuity of adjustment process, life stages, career patterns, development as the result of interaction, dynamics of career patterns, job satisfaction, and work as a way of life. In conducting his career pattern study, Super (1957, (a), pp. 40-41) conceptualized life stages into: (1) growth (birth - 14); (2) exploration (age 15-24); (3) establishment (age 25-44); (4) maintenance (age 45-64); and (5) decline (age 65 on). Vocational development is conceived of as one aspect of individual development (Super, 1957, (b), p. 185) and an individual's occupational choice is explained by the process of formation, translation, and implementation of the self-concept (Super, 1963).

Based on these vocational development and choice theories, along with others (Blau, Gustad, Jessor, Parnes, and Wilcock, 1956; Roe, 1957; Holland, 1959; and Tiedeman, 1961), vocational guidance shifted its emphasis to a broader, more comprehensive view of the individual and his development over the life span. The trait-and-factor approach to vocational guidance has been placed in the context of the complex process of human development.

During the 1970's, there seems to be a renewed emphasis on career guidance, which is related to career development. As "career" is substituted for "vocation", more emphasis is given to the overall context of individual's whole life span. Some basic concepts of career development and career guidance appear in the NVGA-AVA joint position paper (1973) as follows:

1. Development occupies during the lifetime of an individual.
2. Individual development is influenced by both heredity and environment.
3. Development is a continuous process throughout the life of the person.
4. Although development is continuous, certain aspects are dominant at various periods in the life span.
5. Individual development involves a progressive differentiation and integration of the person's self and his perceived world.
6. While common development stages can be observed and described during childhood and adult life, individual differences in progressing through these stages can be expected.
7. Excessive deprivation with respect to any single aspect of human development can retard optimal development in other areas.

Thus, vocational development is shifting to an increased emphasis on the individual's choice of life style and related experiences over the life span rather than choice of a single occupation. Accordingly, vocational guidance has to provide continuing services for job placement and follow-up adjustment in the context of human development beyond simple matching an individual to a job at one time.

Needs for Placement and Follow-Up Services

The need for job placement and follow-up services has been increased year by year, due to the constantly growing complexity of industry and business with more specialized occupations. In parallel with this trend, better facilities and programs are being developed for obtaining the required information concerning individuals and occupations in providing youth with placement and follow-up services.

Professional guidance publications emphasize the importance of placement as an integral part of career development and career education (e.g., Mitchell, Gibson, and Higgins, 1973; Buckingham and Lee, 1973; Tolbert, 1974). Especially drawing attention toward the importance of entering occupational life. Myers (1941) contends that job placement of youth should be recognized as a function of the school system. Without appropriate placement service, Ohlsen (1972) points out that young people have difficulty in finding employment and all too often drift into unproductive or undesirable activities.

Job placement is not mere job finding, it includes: (1) providing ample opportunities for developing or enhancing employability skills and competencies, (2) preparing an individual to make decisions regarding work

and further education or training, and (3) providing avenues and assistance to students seeking part-time or full-time employment which are compatible with their abilities and interests (Gibson and Mitchell, 1976, p. 6). In addition, Tolbert (1974, p. 250) emphasizes helping the individual get ready to make application, following-up on results and assisting with adjustments to the new situation.

As an extention of the job placement service, further assistance is needed for employed youth to make adjustments and take advantage of career opportunities. The most important adjustment needs include assistance in obtaining a new job, help in removing causes of dissatisfaction, aid in determining what additional preparation should be obtained, help in planning desirable cultural, recreational and community-service activities, and help in meeting the discouragement of prolonged unemployment (Myers, 1941, p. 325).

The need for follow-up of former vocational education students and their employers is emphasized in the Education Amendments of 1976 (Public Law 94-482). It is required that follow-up data pertaining to vocational education programs be collected and used in the planning and evaluation of vocational programs. Some rationales for follow-up activities are stated as follows (O'Reilly and Asche, 1979, pp. 3-4):

- Information obtained by following up former students can be useful in making decisions about program expansion or reduction.
- Follow-up data may also give teachers important feedback on the quality of their teaching performance.
- The conduct and findings of follow-up studies of former students has considerable public relations value.

- Follow-up is often viewed as a task that must be accomplished in order to meet reporting requirements.

Development of the Placement and Follow-Up Program

To meet these needs for job placement and follow-up services, the school system should be responsible for developing and operating a placement and follow-up program. In developing the program, initial efforts should be given to specifying the program activities.

For program development, Gibson and Mitchell (1976, pp. 18-21) proposed three-dimensional activities: (1) student development, (2) job development, and (3) maintenance-operational. First, among student development activities are included assessment of student readiness for employment, preparation of student for finding and retaining a job, individual and group career counseling, development of employability skills and competencies, resources for job possibilities, post-employment adjustment counseling, and assistance for employer-employee relationships.

Second, job development activities include: (1) listing potential employers, (2) receiving and developing job opportunities, (3) conducting employers' survey, (4) facilitating business and industry contacts, (5) screening interviews, (6) referring to another level of training or education, (7) developing on-the-job training opportunities, (8) supervising employed students, (9) developing summer placement programs, and (10) developing Job Data Bank Information. Third, maintenance-operational activities include gathering student data and employer data, recordkeeping and maintenance, and reassessing students and employers' needs and market trends.

With regard to major follow-up activities, Asche and O'Reilly (1979) present a synthesis of ten major tasks most frequently cited and indicated in

research and experience. They are to: (1) determine potential system goals, (2) develop system timeliness, (3) make major operational decisions, (4) define population, (5) specify data elements, (6) specify study type, design and methods, (7) develop instrumentation, (8) collect and analyze data, (9) prepare reports and documentation, and (10) evaluate and modify the system (p. 29).

In organizing the placement and follow-up program, there are three general patterns: (1) the decentralized plan which provides services at the school level, (2) the centralized plan which provides one placement unit within the central administrative office, and (3) the combined plan which may be a central office for placement and follow-up, but recommendation and other data obtained from teachers (Tolbert, 1974, pp. 263-64).

Operating the program requires the qualified staff, such as a program director and job placement specialists. The staff of job placement and follow-up programs should assist all students in the school system, including early school learners, handicapped and disadvanataged youth, and graduates after leaving school. In addition to serving the students, they should be responsible for working with counselors, assisting teachers, promoting co-op and work study programs, meeting the needs of school officials and of the entire school system, and organizing the support of employers, labor, and community organizations.

In doing his job, the program director should be able to organize and coordinate internal staff meetings within the school system, and external meetings of leaders from all segments of the community concerning school system policy and practices relating to job placement

and follow-up. In addition, he should have experience in establishing and utilizing advisory committees and training staff in all facets of students and employer services dealing with job placement and follow-up.

R & D Projects for Vocational Placement and Follow-Up

Research and developmental projects concerning the placement and follow-up services in the state of Indiana were reviewed to identify their objectives in developing, implementing and evaluating the placement and follow-up program. The list of the placement and follow-up projects funded through the State Board of Vocational and Technical Education for the 1975, 1976, and 1977 fiscal years is made in order of the code number, and attached to this report (see Appendix A).

1975 Placement and Follow-Up Projects

In June of 1974, the U.S. Commissioner of Education funded a statewide guidance project for the Indiana State Board of Vocational and Technical Education to focus on diverse approaches to placement and follow-up in vocational education. The primary objectives of the statewide project were: (1) to provide a coordinated statewide system for developing and disseminating products, (2) to identify effective concepts and practices in placement services, (3) to develop effective graduates' follow-up techniques and materials, and (4) to provide a cost-effectiveness model for planning and evaluating vocational programs.

Project approaches included such activities as: (1) searching what other states are doing in placement and follow-up and developing Indiana models that may be used statewide to assist youth in becoming more employable,

(2) assisting the school corporations in attaining 100 percent placement -- placement into further training or placement on the job, and (3) assisting vocational administrators with a "How to Manual" to become leaders in program accountability.

In accomplishing the project objectives, seven sub-projects as targeted to specific problems were funded: three in public school systems, one in a two-year postsecondary institution, and three in the state's universities. State staff monitored and coordinated the process of and final reporting associated with each of the sub-projects. A State Advisory Committee for the project was formed and reviewed the project process and commented on the utility and transportability of the project products throughout the state of Indiana. Three regional workshops were conducted to train counselors in the use of the follow-up system, to acquaint them with the strategies for developing alternative placement systems, and to share results of the seven sub-projects.

The third-party evaluator was invited to evaluate the outcomes of the sub-projects. He reviewed each of the sub-projects to determine if it achieved the statewide objectives as a whole and made favorable comments on the products. The final report, entitled Implementation of a Statewide Guidance Program with Emphasis on Counseling, Placement, and Follow-Up for Selected Target Groups, was developed by Gentry, Hornback, Wysong, and McCormick (1976).

Products of the seven sub-projects have been developed to provide adaptability to secondary and postsecondary schools throughout the state. The institutions which conducted sub-projects and their titles and products are briefly described below. The code number in parenthesis is assigned

by the State Board to each project.

1. School City of East Chicago, Student Center Approach to Vocational Choice. A data and information bank was developed to serve as a basis for a placement component in an area vocational education center (8-75-C-10).

2. Evansville-Vanderburg School Corporation, Counseling Research Project Directed to the Special Needs of Identified Student Groups. A longitudinal in-school and out-of-school data system, ranging from seventh grade to ten years after graduation, was produced to provide a model information bank for guidance and placement programs (8-75-C-4).

3. Indianapolis Public Schools, Systems Approach to Leave-School Student Data. A manual for conducting follow-up studies was produced to provide a model for conducting and using follow-up studies (8-75-C-12).

4. Indiana University, Cost-Effectiveness Analysis of Secondary Vocational Programs. A cost-effectiveness analysis model and administrator's manual were developed to assist in conducting cost-effectiveness studies of local vocational education programs. The manual provides necessary materials to allow vocational administrators to conduct school-based studies (8-75-C-5).

5. Indiana University, Identification of Effective Practices in Placement and Follow-Up. A nationwide survey was conducted to identify effective concepts and practices in placement and follow-up services, and a school-based placement program was developed as an equal provider for self/career development, part-time and full-time employment, and further education and training (8-75-C-3).

6. Vincennes University, Development and Implementation of Effective Techniques for Follow-Up of Drop-Outs at Postsecondary Levels. Follow-up materials and guidelines were produced for conducting follow-up studies of drop-outs from postsecondary vocational programs. The document includes computerized techniques for data processing (8-75-C-8).

7. Purdue University, Statewide System of Follow-Up for Vocational Graduates. A standardized follow-up instrument and a system was developed for data collection and interpretation. The instruments and procedures provided the potential for a uniform state follow-up program (8-75-C-15).

In addition to these statewide projects, the State Board funded six demonstration projects to local educational agencies for improving school-based placement and follow-up practices. Each of the projects was concerned with continuation of placement and follow-up services at the LEA community level (48-75-D); demonstration of comprehensive screening-placement-follow-up services for local education agencies (49-75-D); implementation of an ongoing program of placement service for both daytime and night time students (50-75-D); demonstration of innovative approaches to career planning, student selection, job placement and student follow-up (57-75-D); field-test of an objective selection scale for student career placement (58-75-D); and conversion and extension of follow-up system (75-102).

1976 Placement and Follow-Up Projects

In 1976 fiscal year, the State Board funded 14 secondary schools and 9 postsecondary institutions for a total of 23 projects to develop and/or implement a placement/follow-up program. The 14 secondary schools which received a grant and the project's code number are as follows:

1. Four County Area Vocational Cooperative (14-76-D-4)
2. Clinton Central School Corporation (14-76-D-5)
3. Elkhart County Schools (14-76-D-6)
4. Bartholomew Consolidated School Corporation (14-76-D-7)
5. Monroe County Area Vocational School (14-76-D-8)
6. Wawasee Area Vocational Cooperative (40-76-D-1)
7. Perry County Area Vocational School (40-76-D-2)
8. School City of Hammond (40-76-D-3)
9. Blue River Vocational-Technical Center (40-76-D-4)

10. New Albany-Floyd County Consolidated School Corporation (40-76-D-12)

11. Central Nine Vocational-Technical School (40-76-D-13)

12. Walker Career Center (40-76-D-14)

13. El-Tip-Wa Area Vocational School (40-76-D-15)

14. MSD of Wayne Township (40-76-D-16)

The objectives or outcomes of the projects are as shown in Table III. Most projects were conducted to develop materials and techniques and to provide placement and/or follow-up services within the school system. These state-funded projects encouraged local vocational leaders to take initiative in establishing a placement/follow-up program, collecting information from students and employers, and improving communication and public relationships among the school, business, and industry.

The nine placement and follow-up projects were conducted by Indiana Vocational Technical College (IVTC) regional campuses:

1. Indiana Vocational Technical College - Evansville (14-76-D-9)

2. Indiana Vocational Technical College - Columbus (14-76-D-10)

3. Indiana Vocational Technical College - Fort Wayne (40-76-D-5)

4. Indiana Vocational Technical College - Muncie (40-76-D-6)

5. Indiana Vocational Technical College - Terre Haute (40-76-D-7)

6. Indiana Vocational Technical College - Indianapolis (40-76-D-8)

7. Indiana Vocational Technical College - Indianapolis (40-76-D-9)

8. Indiana Vocational Technical College - Madison (40-76-D-10)

TABLE III

OBJECTIVES OF THE PLACEMENT AND FOLLOW-UP PROJECTS

CONDUCTED BY SECONDARY SCHOOLS

Project Objectives	33-77 -C	5-77 -C-10	6-77 -D-3	6-77 -D-4	6-77 -D-8	66-77 -III-4	73-77 -III-4	76-77 -III-4	77-77 -III-4	78-77 -III-2	Total
Develop a job placement/ follow-up system/plan					X		X		X	X	4
Develop a communication system	X			X				X			3
Develop a job entry skills catalog		X									1
Develop a computer-based data of students' skills		X									1
Develop a job readiness profile system			X								1
Develop a job bank			X								1
Develop sill development need profile			X								1
Implement a placement/follow-up system	X			X	X		X		X	X	6
Help students entering into occupations commensurate with personal qualities								X			1
Help students secure employment						X					1
Help employers find qualified employees						X					1

Source: Stoenhausen, N.E. (Ed.). Vocational Education Research and Exemplary Projects in Indiana, 1977. Information Series No. 9. Bloomington, IN: Indiana University, 1979, pp. 29-53.

9. Indiana Vocational Technical College - Sellersburg (40-76-D-11)

Their main efforts were focused on implementing a comprehensive job placement program as developed by a task force of IVTC student services personnel, and a follow-up study or survey within the regional campus area (see Table IV).

1977 Placement and Follow-Up Projects

In the 1977 fiscal year, the State Board funded a total of 25 placement and follow-up projects to 10 secondary schools and 15 postsecondary institutions. The 10 secondary schools and project code numbers are:

1. Evansville-Vanderburgh School Corporation (33-77-C)
2. North Lawrence Community Schools (5-77-C-10)
3. MSD of Lawrence Township (6-77-D-3)
4. Four County Area Vocational Cooperative (6-77-D-4)
5. Clinton Prairie School Corporation (6-77-D-8)
6. Walker Career Center (66-77-III-4)
7. Porter County Career Education Cooperative (73-77-III-4)
8. Lakeland Community School Corporation (76-77-III-4)
9. Central Nine Vocational-Technical School (77-77-III-4)
10. New Castle Community School Corporation (78-77-III-2)

These secondary projects were conducted to develop a job placement/follow-up system, along with specific materials, skills and communication; and implement the placement/follow-up system. Some projects were

TABLE IV

OBJECTIVES OF THE 1976 PLACEMENT AND FOLLOW-UP PROJECTS

CONDUCTED BY POSTSECONDARY INSTITUTIONS

Project Objectives	14-76 -D- 9	14-76 -D-10	40-76 -D- 5	40-76 -D- 6	40-76 -D- 7	40-76 -D- 8	40-76 -D- 9	40-76 -D-10	40-76 -D-11	Total
• Evaluate the effectiveness of prospective Graduate Booklet as a placement technique					X					1
• Implement the long-range plan for job placement services		X								1
• Accelerate the implementation testing and improvement of a comprehensive job placement system			X				X		X	3
• Complete a follow-up study/survey				X		X		X		3
• Expand the follow-up data base	X									1

Source: Eigeman and Steenhausen. Ibid.

specifically directed toward helping students enter into occupations, and employers find qualified employees (see Table V).

The 15 postsecondary institutions and projects which were funded by the State Board are:

1. Indiana Vocational Technical College - Gary (6-77-D-5)
2. Indiana Vocational Technical College - South Bend (6-77-D-6)
3. Indiana Vocational Technical College - Lafayette (6-77-D-7)
4. Purdue University - West Lafayette (65-77-D-III-4)
5. Purdue University - West Lafayette (67-77-III-4)
6. Indiana Vocational Technical College - Fort Wayne (68-77-III-4)
7. Indiana Vocational Technical College - Columbus (69-77-III-4)
8. Indiana Vocational Technical College - Indianapolis (70-77-III-4)
9. Indiana Vocational Technical College - Sellersburg (71-77-III-4)
10. Indiana Vocational Technical College - South Bend (72-77-III-4)
11. Indiana Vocational Technical College - Terre Haute (74-77-III-4)
12. Indiana Vocational Technical College - Gary (75-77-III-4)
13. Indiana Vocational Technical College - South Bend (79-77-III-2)
14. Indiana Vocational Technical College - Evansville (80-77-III-2)
15. Purdue University - West Lafayette (81-77-III-2)

TABLE V

OBJECTIVES OF THE 1977 PLACEMENT AND FOLLOW-UP PROJECTS

CONDUCTED BY SECONDARY SCHOOLS

Project Objectives	14-76 -D- 4	14-76 -D- 5	14-76 -D- 6	14-76 -D- 7	14-76 -D- 8	40-76 -D- 1	40-76 -D- 2	40-76 -D- 3	40-76 -D- 4	40-76 -D-12	40-76 -D-13	40-76 -D-14	40-76 -D-15	40-76 -D-16	Total
• Establish a placement/follow-up program		X					X					X			3
• Establish a system to coordinate efforts								X							1
• Develop a plan for job placement/ follow-up		X													1
• Develop a system for gathering information/data			X					X				X			3
• Develop materials and techniques			X		X			X			X			X	5
• Develop a system for communication/ public relationship	X		X	X		X				X	X				6
• Develop employment opportunity/job experiences				X											1
• Provide placement/follow-up services	X	X				X			X	X	X				6
• Collect data from students/employers/ community				X	X					X	X		X	X	6
• Identify potential educational resources													X		1
• Identify skill requirements/potential student employees					X										1

Source: Eigeman, E. and Steenhausen, N. (Eds.). Vocational Education Research and Exemplary Projects in Indiana, 1976. Information Series No. 6. Bloomington, IN: Indiana University, 1978, pgs. 16-38.

Among them, eight projects were primarily concerned with the development of a placement/follow-up system and related activities, five projects were concerned with the implementation of placement/follow-up services, and a couple of projects were inquiry in nature (see Table VI).

During the past few years, a vast effort has been given to develop and implement placement/follow-up services at both the secondary and postsecondary school levels. Most projects were conducted for self-development and implementation on a limited basis in an effort to improve placement/follow-up services.

Impacts of Vocational Placement and Follow-Up Programs

A survey was conducted to find the status and problems in developing and operating the placement and follow-up program and to assess impacts of the programs upon students, employers, and community development. The survey results are described in terms of: (1) establishment of the program and personnel, (2) activities in the program, (3) external supports, (4) development/adoption of materials, (5) utilization of the information, (6) operational problems, (7) effectiveness of the program, and (8) suggestions for improving the program.

Establishment of the Program and Personnel

Out of the 38 area vocational schools, 29 schools have established a placement and follow-up program for vocational students, three schools are planning its establishment and the remaining six schools did not respond. The program has been established after 1970 at 28 out of the 32 reported schools, whereas only four schools established the program before 1970.

TABLE VI

OBJECTIVES OF THE 1977 PLACEMENT AND FOLLOW-UP PROJECTS

CONDUCTED BY POSTSECONDARY INSTITUTIONS

Project Objectives	6-77 -D-5	6-77 -D-6	6-77 -D-7	65-77 -III-4	67-77 -III-4	68-77 -III-4	69-77 -III-4	70-77 -III-4	71-77 -III-4	72-77 -III-4	74-77 -III-4	75-77 -III-4	79-77 -III-2	80-77 -III-2	81-88 -III-2	Total
• Develop a placement/follow-up system					X		X						X			3
• Develop a plan for employer reference files	X															1
• Develop a placement activities timetable	X															1
• Develop a job bank		X								X						2
• Develop an employer follow-up model				X												1
• Develop a student tracking program														X		1
• Implement placement/follow-up services							X				X		X			3
• Implement a non-returning student follow-up plan						X			X							2
• Improve placement services			X									X				2
• Conduct a study of dropout students								X								1
• Determine the economic impact of graduates					X											1
• Determine the types of entry level positions															X	1

Source: Steenhansen, Ibid.

Four schools out of 32 have two and more full-time equivalent (FTE) personnel and three schools have one or less than two FTE personnel and the majority of the schools have only less than one FTE staff who are responsible for the placement and follow-up activities.

Among the 14 postsecondary vocational education institutions in the survey, ten institutions have established the placement and follow-up program during the seventies, one institution has the program under planning, and three institutions did not respond. Four institutions have one or more full-time equivalent (FTE) student personnel and six institutions have less than one FTE staff who are responsible for the placement and follow-up activities.

After the placement and follow-up program was established, more vocational guidance services became available to both the students and the community than ever before. The availability of the vocational guidance services were perceived relatively low as a whole. Among the vocational guidance services, "Self-inventory services", and "Occupational research and evaluative studies" were less available than the other services at area vocational schools, and "Vocational preparation services" and "Occupational research and evaluative studies" were less available than the others at postsecondary institutions (see Table VII).

Activities in the Program

The activities within the placement and follow-up program were classified into those for: (1) students' self-development, (2) students' job development, (3) graduates' follow-up, and (4) employers' follow-up.

TABLE VII

VOCATIONAL GUIDANCE SERVICES AVAILABLE
TO STUDENTS AND THE COMMUNITY

Services	Response (%) Secondary	Postsecondary
(1) Vocational information services	56.6	67.6
(2) Self-inventory services	45.1	56.8
(3) Personal data collecting services	58.4	64.9
(4) Vocational counseling services	60.2	54.1
(5) Vocational preparation services	52.2	40.5
(6) Job placement services	71.7	86.5
(7) Follow-up adjustment services	64.6	45.9
(8) Occupational research and evaluative studies	42.5	43.2

For students' self-development. Over 80 percent of the secondary respondents indicated assessment of students' readiness for employment, preparation for finding a job, employability skill development, and provision of student counseling as related to job placement. At the postsecondary level, activities for students' readiness and employability skill development were less provided than those for students' preparation for finding a job and counseling as related to job placement (see Table VIII).

For students' job development. Over 80 percent of the secondary respondents indicated provisions of potential employers, job openings, and business and industry contacts; 73 percent of them responded to those activities for employment needs study and provision of on-the-job training opportunities; only 60 percent indicated interviews for screening qualified

TABLE VIII

ACTIVITIES FOR STUDENTS' SELF-DEVELOPMENT

Activities	Response (%) Secondary	Postsecondary
(1) To assess students' readiness for employment	83.2	54.1
(2) To prepare students for finding a job	88.5	89.2
(3) To develop employability skills and competencies	87.6	62.2
(4) To counsel students in solving problems related to the job or placement situation	81.4	70.3

applicants. At the postsecondary level, those provisions of identifying job openings and business and industry contacts were relatively higher than those of employment needs study, interviews for screening qualified applicants and on-the-job training opportunities (see Table IX).

For graduates' follow-up. The most respondents at both the secondary and postsecondary levels, indicated the identification of graduates' or completers' employment status. At area vocational schools, next higher responses were to those activities: "To develop materials for student follow-up survey (73.5%)", "To survey employed graduates' or completers' job satisfaction (73.5%)", and "To collect information pertaining to their previous training and work relationship (68.1%)". Lower responses were given to record keeping of their work history (54.0%), needs survey for graduates' job advancement and additional training (47.8%), and counseling for their job adjustment (34.5%).

TABLE IX

ACTIVITIES FOR STUDENTS' JOB DEVELOPMENT

Activities	Response (%) Secondary	Postsecondary
(1) To develop a list of potential employers	80.5	70.3
(2) To identify job openings within and outside the community	84.1	91.9
(3) To study needs for employment and available positions	72.6	62.2
(4) To promote business and industry contacts	86.7	81.1
(5) To conduct interviews for screening qualified applicants to fit employers' considerations	60.2	54.1
(6) To provide on-the-job training opportunities	72.6	45.9

At postsecondary institutions, very lower responses appeared in record keeping (21.6%), collecting information (32.4%), survey needs for job advancement (24.3%), counseling for job adjustment (27%) than in surveying job satisfaction (81.1%) and developing materials for follow-up survey (70.3%) (see Table X).

For employers' follow-up. The activities for employers' follow-up appeared to be in a middle range of the responses at both the secondary and postsecondary levels. At the secondary level more than half of the respondents positively indicated employers' satisfaction survey (68.1%), their needs assessment (60.2%), job related information collection (58.4%), committee organization for communication between the school and

TABLE X

ACTIVITIES FOR GRADUATES' FOLLOW-UP

Activities	Response (%) Secondary	Postsecondary
(1) To identify graduates' or completers' employment status	95.6	94.6
(2) To keep recording their work history	54.0	21.6
(3) To develop materials for student follow-up survey	73.5	70.3
(4) To survey employed graduates' or completers' job satisfaction	73.5	81.1
(5) To collect information pertaining to their previous training and work relationship	68.1	32.4
(6) To survey needs for graduates' or completers' job advancement and/or additional training	47.8	24.3
(7) To provide counseling for their job adjustments	34.5	27.0

employers (56.6%), but they negatively responded toward development of instruments for employer follow-up survey (44.2%).

At the postsecondary level, more than half of the respondents indicated positively employers' satisfaction survey (73%), their needs assessment and material development (59.5%), but they negatively responded toward job related information collection (43.2%) and committee organization for communication between the school and employers (45.9) (see Table XI).

TABLE XI

ACTIVITIES FOR EMPLOYERS' FOLLOW-UP

Activities	Response (%) Secondary	Postsecondary
(1) To develop instruments for employer follow-up survey	44.2	59.5
(2) To assess employers' needs and market trends	60.2	59.5
(3) To collect data on the job related skills, knowledge and characteristics	58.4	43.2
(4) To survey employers' satisfaction with employed graduates' job performance	68.1	73.0
(5) To organize committees for communication and cooperation between the school and employers	56.6	45.9

External Supports

All the responded schools indicated financial supports in developing their placement and follow-up program. The major source of external support was grants from the Indiana State Board of Vocational and Technical Education. At area vocational schools, the responses to the use of the money indicated: to develop data collection instruments (72.7%), to install placement program (67.3%), to initiate follow-up program (65.5%), to collect and analyze data (61.8%), to hire temporary staff (61.8%), to purchase relevant materials and instruments (52.7%), and to organize advisory committees (30.9%).

At postsecondary institutions, the respondents indicated: to develop data collection instruments (82.4%), to hire temporary staff

(76.5%), to install placement program (76.5%), to collect and analyze data (64.7%), to initiate follow-up program (64.5%), to purchase relevant materials and instruments (58.8%), and to organize advisory committees (see Table XII).

TABLE XII

EXTERNAL SUPPORTS FOR THE PLACEMENT AND FOLLOW-UP PROGRAM

Activities	Response (%) Secondary	Postsecondary
(1) To develop data collection instruments	72.7	82.4
(2) To purchase relevant materials and instruments	52.7	58.8
(3) To collect and analyze data	61.8	64.7
(4) To hire temporary staff	61.8	76.5
(5) To install placement program	67.3	76.5
(6) To initiate follow-up program	65.5	64.5
(7) To organize advisory committees	30.9	17.6

Although there was found a difference in order of responses to using the money between the secondary and postsecondary levels, the highest responses appeared to develop data collection instruments, whereas lower responses were seen to organize advisory committees and to purchase relevant materials and instruments at both school levels.

Development/Adoption of Materials

Each school system has developed its own materials for the placement and follow-up activities. The majority of area vocational schools indicated

their own development of student follow-up and employer follow-up forms and one-half of the responded schools developed placement service brochures and/or placement packets for their own use. Several schools developed additional materials such as student job application or placement file (35%) and job readiness and seeking skills program (35%) and employer information and contact forms (35%). Ten percent of the responded schools developed employability profile, program feasibility study form and early leaver survey form (see Table XIII).

TABLE XIII

DEVELOPMENT OF MATERIALS FOR THE PLACEMENT/FOLLOW-UP PROGRAM

Materials	Response (%) Secondary	Postsecondary
(1) Placement Service Brochure/ Packet	50.0	25.0
(2) Student Job Application/ Placement Profile	35.0	50.0
(3) Job Readiness and Procurement/ Job Seeking Skills	35.0	50.0
(4) Employability Profile	10.0	37.5
(5) Program Feasibility/Community Information	10.0	----
(6) Early Leaver/Dropout Survey	10.0	12.5
(7) Student Follow-Up Forms	85.0	37.5
(8) Employer Follow-Up Forms	85.0	37.5
(9) Employer Information/Contact Forms	35.0	25.0

At postsecondary institutions, one-half of the responded institutions indicated development of materials such as job placement profile and job seeking skills program. Several institutions developed additional materials for student and employer follow-up (37.5%), employability profile (37.5%), placement service brochure (25%), employer information (25%), and dropout survey form (12.5%).

A little number of schools and postsecondary institutions responded to the adoption of materials as developed by others outside their own school. Most respondents simply mentioned that they used placement and follow-up materials as developed within the state of Indiana in developing their own materials. Most frequently indicated materials were "System for Implementing Review and Follow-Up" (SIRF) which was developed by Purdue University (Richardson, 1975), and "Keys to Success in Student Personnel Services: A Description of a Model Program" which was developed by New-Albany-Floyd County Consolidated School Corporation and Charles Allen Prosser Vocational Center (Fields, et al., 1978) at both the secondary and postsecondary school levels.

Utilization of Placement/Follow-Up Information

Most of the responded area vocational school personnel indicated the utilization of placement/follow-up information to: "evaluate the effectiveness and relevance of training programs" (96.9%), "report the information as required to government agencies" (93.8%), "promote communication and cooperation between the school and community" (87.6%), "provide decision makers with information for planning purposes" (79.4%), "assess the effectiveness of the placement/follow-up program itself" (77.3%), and "assess graduates' performance on the job" (75.2%) (see Table XIV).

TABLE XIV

UTILIZATION OF THE PLACEMENT AND FOLLOW-UP INFORMATION

	Response (%) Secondary	Postsecondary
(1) To report the information as required to government agencies	93.8	65.6
(2) To provide decision-makers with information for planning purposes	79.4	65.6
(3) To assess graduates' performance on the job	75.2	56.3
(4) To evaluate the effectiveness and relevance of training programs	96.9	78.1
(5) To promote communication and cooperation between the school and community	87.6	75.0
(6) To assess the effectiveness of the placement/follow-up program itself	77.3	81.3

More respondents of postsecondary institutions indicated the use of the placement/follow-up information to: "assess the effectiveness of the placement/follow-up program itself" (81.3%), "evaluate the effectiveness and relevance of training programs" (78.1%), and "promote communication and cooperation between the school and community" (75.0%), rather than to report information to government agencies (65.6%), for planning purposes (65.6%), and graduates' job performance evaluation (56.3%).

Operational Problems

The responses to problems interfering with the effective operation of the placement/follow-up program were analyzed to compute degrees of seriousness (%), and weighted average points by assigning weighting points 1, 2, 3 to "not serious", "somewhat serious", and "very serious" problems respectively and by dividing the total points by the total number of respondents (see Table XV).

Most serious problems at area vocational schools were budget shortage to hire qualified personnel (76.3%) with an average point of 2.03 over 3.00. Secondly serious problems were found to be the community's hardly understanding of the program importance (1.63/3.00), difficulty of needed information collection (1.57/3.00), and lack of data processing system (1.56/3.00). The remaining barriers were perceived to be less serious which were below the middle point of average (1.50/3.00).

As shown in Table XV, at postsecondary institutions the most seriously perceived problem was budget shortage to hire qualified personnel (84.4%) with an average point of 2.44 over 3.00. Secondly serious problems were expensive costs (62.6%) with an average point of 1.81; difficulty of needed information collection (62.5%) with an average point of 1.72 over 3.00; and lack of data processing system (46.9%) with an average point of 1.50 over 3.00. The other eight barriers were perceived to be less serious than the above four problems.

A great number of the respondents didn't know how serious the problems were, thereby the average points were made lower as a whole. However, the budget and cost problems appeared to be most serious at both the secondary and postsecondary school levels.

TABLE XV

PROBLEMS INTERFERING WITH THE EFFECTIVE OPERATION OF THE PLACEMENT AND FOLLOW-UP PROGRAM

	Problems	Secondary Degree of Seriousness (%) Not Serious	Somewhat Serious	Very Serious	Don't Know	Weighted Average Point/3.0	Postsecondary Degree of Seriousness (%) Not Serious	Somewhat Serious	Very Serious	Don't Know	Weighted Average Point/3.0
(1)	Costs are expensive	20.6	42.3	34.0	3.1	2.07	21.9	28.1	34.4	15.6	1.81
(2)	Quality of information is questionable	55.7	33.0	7.2	4.1	1.43	31.3	34.4	9.4	24.9	1.28
(3)	Needed information is hardly collected	51.5	30.9	14.4	3.2	1.57	25.0	40.6	21.9	12.5	1.72
(4)	Reporting requirements are overloaded	34.0	34.0	13.4	18.6	1.42	15.6	34.4	18.8	31.2	1.41
(5)	Timeliness is inadequate	37.1	37.1	10.3	15.5	1.42	31.3	31.3	6.3	31.1	1.13
(6)	Appropriate instruments/ analytical techniques are limited	38.1	32.0	15.5	14.4	1.48	12.5	43.8	12.5	31.2	1.38
(7)	Data processing system is not available	49.5	17.5	23.7	9.3	1.56	28.1	18.8	28.1	25.0	1.50
(8)	Budget is not enough to hire qualified staff	26.8	25.8	50.5	3.1	2.30	12.5	21.9	62.5	3.1	2.44
(9)	Legal constraints restrict collecting data	54.6	19.6	6.2	19.6	1.12	50.0	21.9	.0	28.1	.94
(10)	Administrative climate of acceptance and support is not favorable	59.8	18.6	8.2	13.4	1.22	59.4	9.4	18.8	12.4	1.34
(11)	The importance of the program is hardly understood by the community	36.1	37.1	17.5	9.3	1.63	37.5	21.9	9.4	31.2	1.09
(12)	Available services are limited to a certain group of students, not to all students	60.8	22.7	12.4	4.1	1.43	62.5	12.5	6.3	18.7	1.06

Effectiveness of the Program

From the reviewed literature, 25 impacts of the placement/follow-up program were identified as desired outcomes from the program. They include 1 through 10 items on students' job placement, 11 through 15 items on graduates' follow-up, 16 through 20 items on employers and community, and 21 through 25 items on program management. The responses to the impacts of the placement/follow-up program were analyzed to determine both degree of effectiveness (%), and weighted average points by assigning points 1, 2, and 3 to "Least Effective", "Somewhat Effective", and "Very Effective", respectively and dividing the total points by the total number of respondents (see Table XVI).

The impacts of the program on students' job placement (2.31/3.00), and on employers and community (2.12/3.00) were more effective than those on program management (1.93/3.00) and graduates' follow-up (1.58/3.00) at area vocational schools. Nine items out of ten impacts on students' job placement received above 2.00 over 3.00 points. Among them, most effective impacts were "To improve business and industry contacts with the school" (2.58/3.00) and "To help more students in finding a job" (2.52/3.00).

Two items out of five impacts on employers and community received above 2.00 over 3.00 points. These were "To improve communication and cooperation between the school and employers" (2.49/3.00), and "To increase the community's understanding of and support for vocational training programs (2.28/3.00).

Out of five impacts on program management, two items received above 2.00 over 3.00 points, which were "To improve communication and cooperation

TABLE XVI

EFFECTIVENESS OF THE PLACEMENT AND FOLLOW-UP PROGRAM

Impacts	Secondary Degree of Effectiveness(%) Least Effective	Somewhat Effective	Very Effective	Don't Know	Weighted Average Point/3.0	Postsecondary Degree of Effectiveness(%) Least Effective	Somewhat Effective	Very Effective	Don't Know	Weighted Average Point/3.0
Students' Job Placement					(2.31)					(2.06)
(1) To provide more students placement services	9.3	37.1	49.5	4.1	2.32	----	46.9	53.1	----	2.53
(2) To improve students' readiness for employment	6.2	47.4	45.4	1.0	2.37	15.6	43.8	37.5	3.1	2.16
(3) To help more students in finding a job	4.1	34.0	59.8	2.1	2.52	----	37.5	56.3	6.3	2.43
(4) To improve students' employability skills and competencies	11.3	51.5	44.3	7.1	2.47	28.1	40.6	21.9	9.4	1.75
(5) To increase the rate of job placement of students	6.2	40.2	46.4	7.2	2.26	3.1	56.3	37.5	3.1	2.28
(6) To provide students with more appropriate information on job openings	9.3	34.0	53.6	3.1	2.38		43.8	56.2		2.56
(7) To identify employment needs and position requirements	10.3	44.3	43.3	2.1	2.29	18.8	37.5	40.6	3.1	2.17
(8) To improve business and industry contacts with the school	5.2	38.1	58.8	2.1	2.58	15.6	40.6	37.5	6.3	2.09
(9) To increase students' on-the-job training opportunities	11.3	42.3	41.2	5.2	2.20	40.6	37.5	6.2	15.7	1.93
(10) To facilitate the screening process for employers' considerations	20.6	36.1	26.8	16.5	1.73	31.2	37.5	18.8	12.5	1.62

TABLE XVI, continued

Impacts	Secondary Degree of Effectiveness(%) Least Effective	Somewhat Effective	Very Effective	Don't Know	Weighted Average Point/3.0	Postsecondary Degree of Effectiveness(%) Least Effective	Somewhat Effective	Very Effective	Don't Know	Weighted Average Point/3.0
Graduates' Follow-Up					(1.58)					(1.47)
(11) To improve graduates' employment status and performance on the job	23.7	35.1	27.8	13.4	1.77	34.4	37.5	6.2	21.9	1.28
(12) To increase graduates' job satisfaction	25.8	38.1	21.6	14.5	1.67	28.1	31.2	15.6	25.1	1.38
(13) To decrease graduates' job turnover	18.6	30.9	16.5	34.0	1.30	34.4	31.2	----	34.4	.97
(14) To increase opportunitites for graduates' job advancement and additional training	28.9	35.1	13.4	22.6	1.39	43.8	37.5	6.2	12.5	1.38
(15) To improve communication between graduates and students enrolled in the training program	23.7	42.3	23.7	10.3	1.79	50.0	28.1	9.4	12.5	1.34
Employers and Community					(2.12)					(1.88)
(16) To improve communication and cooperation between the school and employers	5.2	46.4	50.5	2.1	2.49	6.2	56.2	37.5	.1	2.31
(17) To increase employers satisfaction with employed graduates' job training	7.2	28.9	43.3	20.6	1.95	12.5	50.0	28.1	9.4	1.97
(18) To increase employers' satisfaction with employed graduates' job performance	6.2	37.1	38.1	18.6	1.95	18.8	37.5	18.8	24.9	1.50
(19) To meet demands for the labor market within the communinity	12.4	48.5	28.9	10.2	1.96	15.6	34.4	37.5	12.5	1.97
(20) To increase the community's understanding of and support for vocational training programs	8.2	46.4	42.3	3.1	2.28	18.8	50.0	15.6	15.6	1.66

TABLE XVI, continued

Impacts	Secondary Degree of Effectiveness(%) Least Effective	Somewhat Effective	Very Effective	Don't Know	Weighted Average Point/3.0	Postsecondary Degree of Effectiveness(%) Least Effective	Somewhat Effective	Very Effective	Don't Know	Weighted Average Point/3.0
Program Management					(1.93)					(1.62)
(21) To improve communication and cooperation among the staff for student services within the school system	18.6	43.3	32.0	6.1	2.01	21.9	46.9	21.9	9.3	1.81
(22) To improve an information system for the decision-making and planning for vocational programs	13.4	46.4	29.9	10.3	1.59	34.4	37.5	15.6	12.5	1.56
(23) To improve the effectiveness of vocational programs to meet job requirements	11.3	46.4	36.1	6.2	2.12	25.0	50.0	15.6	9.4	1.72
(24) To improve a reporting system required by federal and state agencies	7.2	35.1	39.2	18.5	1.95	15.6	53.1	9.4	21.9	1.50
(25) To improve vocational educators' accountability to legislators, taxpayers, and parents	12.4	38.1	36.1	13.4	1.97	21.9	28.1	25.0	25.0	1.53

among the staff for student services within the school system" (2.01/3.00), and "To improve the effectiveness of vocational programs to meet job requirements" (2.12/3.00). Among all the items, the least effective impacts were "To decrease graduates' job turnover" (1.30/3.00) and "To increase opportunities for graduates' job advancement and additional training" (1.39/3.00).

At postsecondary institutions, like area vocational schools, the program's impacts on students' job placement (2.06/3.00) were more effective than those on employers and community (1.88/3.00), program management (1.62/3.00), and graduates' follow-up (1.47/3.00). Seven items out of ten impacts on students' job placement received above 2.00 and 3.00 points. Among them, most effective impacts were "To provide students with more appropriate information on job openings" (2.56/3.00), and "To provide more students with placement services" (2.53/3.00).

Out of five impacts on employers and community, one item, which was "To improve communication and cooperation between the school and employer", received above 2.00 over 3.00 points. All items on both graduates' follow-up and program management appeared to be below 2.00 over 3.00 points. Among the 25 items, the least effective impacts were "To increase graduates' job turnover (.97/3.00), "To increase students' on-the-job training opportunities" (1.03/3.00), "To improve communication between graduates and students enrolled in the training program" (1.34/3.00), and "To increase opportunities for graduates' job advancement and additional training" (1.38/3.00).

Suggestions for Improving the Program

The respondents made some suggestions concerning professional staff, financial support, and program development for improving the placement and follow-up program.

First, the majority of the respondents suggested that a full-time specialist or program coordinator, and additional staff for contacts with industry and clerical support are needed for improving the placement and follow-up program. Some people strongly requested at least a full-time staff who are solely responsible for operating the program.

Second, most respondents requested financial support to continue the program. Some of them asked for an increase of budget for mileage costs, and additional budget for training staff in the program operation, and data collection and analysis including computer time.

Third, some respondents suggested that the State Board develop a model program which constitutes vocational placement and follow-up activities. They also requested to provide appropriate information on time in the fall through the improved mailing system.

In addition to these suggestions, some individuals indicated a meaningful involvement of the business and industry, and community, a study of needed guidance services, and a revision of present placement and follow-up program.

Summary

Until the late 1940's, the majority of vocational guidance practitioners viewed the matching of individuals and jobs as a one-time event. Against this tradition, vocational guidance turned toward new

emphasis in the vocational development and choice movement during the fifties and sixties. During the past decade, an increased emphasis was focused upon the individual's choice of life style and related experiences over the life span rather than choice of a single occupation. Accordingly, vocational guidance was directed to provide continuing services for job placement and follow-up adjustment in the context of human development. The need for job placement and follow-up services was emphasized not only in professional publications, but also in recent legislation, which facilitated the development of both conceptual schemes and practical activities for students' job placement, and graduates' and employers' follow-up services.

With federal research and development grants, in 1975 the Indiana State Board of Vocational and Technical Education directed a statewide guidance project including seven sub-projects for developing vocational placement and follow-up programs. The State Board also funded six local educational agencies for demonstration projects. In addition, the State Board supported local area vocational schools and postsecondary institutions to improve their placement and follow-up services. It funded 14 secondary schools and 9 postsecondary institutions in 1976 fiscal year; and 10 secondary schools and 15 postsecondary institutions in 1977 fiscal year. Most projects were conducted to develop materials and/or to implement demonstration programs for improving placement and follow-up services.

In an effort to assess impacts of the placement and follow-up program, a survey was conducted. The major findings are summarized below.

1. Most area vocational schools and postsecondary vocational institutions have established a placement and follow-up program during the seventies; but one or less than full-time equivalent (FTE) staff was employed for the program operation.

2. More activities were provided for students' self-development and job development rather than for graduates' follow-up and employers' follow-up at both the secondary and postsecondary school levels.

3. External support for the placement and follow-up program, at both school levels, was mostly used to develop data collection instruments, to hire temporary staff, to collect and analyze data, and to install a placement and follow-up program.

4. The majority of area vocational schools indicated their own development of student and employer follow-up forms and one-half of the responded schools developed placement service brochures or packets for their own use; whereas one-half of the responded postsecondary institutions indicated development of materials such as job placement profile and job seeking skills programs.

5. Most of the secondary and postsecondary respondents indicated utilization of placement and follow-up information to evaluate the effectiveness of training programs and the placement/follow-up program itself, to provide the information to government agencies and decision-makers for planning purposes, and to promote communication and cooperation between the school and the community.

6. Among the problems interfering with the effective operation of the placement/follow-up program, shortage in budget to hire qualified personnel and expensive costs appeared to be most serious problems at both the secondary and postsecondary school levels.

7. The impacts of the placement/follow-up program on students' job placement and on employers' and community involvement were more effective than those on program management and graduates' follow-up at area vocational schools and postsecondary institutions.

8. Among the 25 items, the most effective impacts were made: (1) to provide more students with placement services, (2) to help more students in finding a job, (3) to provide students with more appropriate information on job openings, and (4) to improve business and industry contacts with the school.

9. The least effective impacts were made: (1) to decrease graduates' job turnover, and (2) to increase opportunities for graduates' job advancement and additional training.

10. Some suggestions for improving the placement/ follow-up program were made to demand additional staff including a full-time specialist and/or a clerical staff, to continue financial supports, and to develop a model program which constitutes the placement and follow-up activities.

CHAPTER IV

CONCLUSIONS AND RECOMMENDATIONS

This project reached two purposes: (1) to review selected impact studies on research and development (R & D) projects in vocational education, and (2) to conduct a survey on the impact of the placement and follow-up program in the state of Indiana. Based on the findings, some conclusions are drawn as are recommendations made for future activities.

Conclusions

In an effort to understand the impact of vocational education R & D projects, three nationwide and four state impact studies were analyzed in terms of the purpose, conceptualization, methodology, and findings of the studies. Additional efforts were given to discuss the conceptual and methodological problems in the impact studies. From the analysis of the seven selected studies, the following conclusions were drawn:

1. The reviewed studies report positive effects of R & D projects in vocational education. Some findings were quite conclusive in increasing knowledge about vocational education and its students. Positive effects were also found on student outcomes, project personnel, and educational practices. Federal funding for vocational education R & D increased research capacity for improving the R & D program.

2. There were some limitations in defining the "impact" of R & D projects, developing a conceptual framework, and collecting data for the study. The degree of R & D impacts was described in different ways and it was determined by the extent of product dissemination in scope, or influence on professional development of the project personnel. None of the reviewed studies

were directed to evaluate the quality of R & D products and to investigate factors influencing the impact of R & D projects. The data were collected through a questionnaire survey, telephone conversations, and interviews with project personnel rather than direct observation of practices.

3. Due to the conceptual and methodological limitations, the studies failed to test statistical significance of the results, and findings were too general to determine the degree of impact of specific R & D projects on the target group.

4. Based on the findings, recommendations were made for the federal and state agencies to bring about changes in the policy and administration of the R & D program. The initial efforts for impact studies should be extended toward increasing the actual impact of R & D projects on the development of target groups. The cooperative efforts of administrators, researchers, and practitioners should be focused upon resulting in the maximum effectiveness of R & D projects in vocational education.

To achieve the second purpose, a survey questionnaire form was designed to identify information on the establishment, operation, and effectiveness of the placement and follow-up program. Out of 288 questionnaire forms which were mailed to secondary and postsecondary administrators, student service personnel, and faculties, 150 forms (52.08%) were returned. The survey results draw the following conclusions:

1. The funding of the State Board of Vocational and Technical Education has assisted area vocational schools and postsecondary institutions to establish a placement and follow-up program during the seventies.

2. Within the program, more activities were provided for placement services rather than for follow-up services. Self-developed materials and instruments were used for placement and follow-up activities.

3. The placement and follow-up information was utilized for promoting communication and cooperation between the school and community as well as for program evaluation and planning purposes.

4. The most serious problem interfering with the effective operation of the program was shortage in budget and personnel. The provision of additional funds was required for solving this problem.

5. The impacts of the placement and follow-up program on students' job placement and employers and community involvement were more effective than graduates' follow-up and program management improvement.

6. Among the 25 items, the most effective impacts were made on student job placement; whereas the least effective impacts were made on graduates' job adjustment and advancement.

Recommendations

This report is not conclusive, but exploratory in determining the impact of the vocational education R & D program in general, and of the placement and follow-up program in particular. More efforts should be extended to continuing empirical studies on R & D projects and improving the effectiveness of the placement and follow-up program. From this point of view, the following recommendations made are:

1. For future studies on the impact of R & D projects, more professional efforts shall be given to developing a comprehensive framework for the impact study and to identify practical evidences through the direct observation from the long-term perspective.

2. Empirical studies shall be conducted to determine the impact of specific R & D projects on the specific target groups of administrators, teachers and/or students. Accumulated research results from specific studies will provide a groundwork for determining the degree of actual impacts of the overall R & D program in vocational education.

3. In order to make the placement and follow-up effective, more efforts should be given to graduates' follow-up activities for their job advancement and continuing education as well as for job placement activities.

4. Additional financial supports shall be provided to local educational agencies to hire or retain a qualified professional staff who is responsible for placement and follow-up services, and to improve both the quality of, and the opportunities for the program.

5. Cooperative efforts between state and local education agencies, and business, and industry and communities shall be made to institutionalize the placement and follow-up program into the administrative system.

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APPENDIX A

LIST OF THE PLACEMENT/FOLLOW-UP PROJECTS

LIST OF THE PLACEMENT/FOLLOW-UP PROJECTS FUNDED BY THE
STATE BOARD OF VOCATIONAL AND TECHNICAL EDUCATION, STATE OF INDIANA

1975 Projects

8-75-C Gentry, D., Hornback, E., Wysong, R., and McCormick, F. Implementation of a Statewide Guidance Program with Emphasis on Counseling, Placement, and Follow-Up for Selected Target Groups. Indianapolis: State Board of Vocational and Technical Education, 1976.

8-75-C-3 Gibson, R. and Mitchell, M. School-Based Placement and Follow-Up Services: Equal Opportunity Provider. Bloomington, IN: Indiana University, 1976.

8-75-C-4 Andress, G., Jr. Counseling Research Project Directed to the Special Needs of Identified Student Groups. Evansville, IN: Evansville-Vanderburgh School Corporation, 1975.

8-75-C-5 Kim, J. and Harris, R. A Cost-Effectiveness Analysis Model for Secondary Vocational Programs: Technical Report. Bloomington, IN: Indiana University, 1976.

Kim, J., Harris, R. and Ruby, D. Cost-Effectiveness Analysis of Secondary Vocational Programs: Administrator's Manual. Bloomington, IN: Indiana University, 1976.

8-75-C-8 Vincennes University. Development and Implementation of Effective Techniques for Follow-Up of Drop-Outs at Postsecondary Levels. Vincennes, IN: Vincennes University, 1975.

8-75-C-10 Nagy, C.G. The Application of a Client Centered Approach to Vocational Choice. East Chicago: School City of East Chicago, 1975.

8-75-C-12 Boatwright, G. A Systems Approach to Leave-School Data Project. Indianapolis, IN: Indianapolis Public Schools, 1976.

8-75-C-15 Richardson, W. SIRF: System for Implementing Review and Follow-Up. W. Lafayette, IN: Purdue University, 1975.

48-75-D Fields, C. Continuation of Strategies for a Placement Service and the Follow-Up Model. New Albany, IN: New Albany-Floyd County School Corporation, 1975.

49-75-D Bowen, R. A System for Comprehensive Screening-Placement-Follow-Up Services for Local Educational Agencies. Evansville, IN: Evansville-Vanderburgh School Corporation, 1975.

50-75-D Lewis, D. Placement Service Model. Elwood, IN: Mid-Central Area Vocational School, 1975.

57-75-D Vietti, M. Innovative Approaches to Vocational Counseling, Placement and Follow-Up for Selected Service Target Groups. Valparaiso, IN: Porter County Career Education Cooperative, 1975.

58-75-D Szczepanski, M. Development and Field Testing of an Objective Selection Scale for Student Career Placement. West Lafayette, IN: Purdue University, 1976.

75-102 Bowen, R. Conversion and Extension of Follow-Up System Developed by SBVTE 8-75-C-15. Evansville, IN: Evansville-Vanderburgh School Corporation, 1976.

1976 Projects

14-76-D-4 Wesolowski, A., Jr. and Heier, J.L. Vocational Placement and Follow-Up Project. Garrett, IN: Four County Area Vocational Cooperative, 1977.

14-76-D-5 Moss, J. Implementation of a Job Placement and Follow-Up System for Vocational Education Students. Michigantown, IN: Clinton Central School Corporation, 1977.

14-76-D-6 DuVall, J. and Morgan, J. Vocational Education Student Job Placement and Follow-Up. Elkhart, IN: Elkhart Community Schools, 1978.

14-76-D-7 Bradbury, R. Development of Essential Follow-Up and Placement of Vocational Education Students. Columbus, IN: Bartholomew Consolidated School Corporation.

14-76-D-8 Hellmann, J. and Woolf, B. A Job Placement Follow-Up Study. Bloomington, IN: Monroe County Area Vocational School, 1976.

14-76-D-9 Schenk, D. A Follow-Up System for Post-Secondary Vocational-Technical Programs. Evansville, IN: Indiana Vocational Technical College, 1977.

14-76-D-10 Baran, S. Continuation of Southeastern Indiana Vocational School and Employer Communications System. Columbus, IN: Indiana Vocational Technical College-Region 10, 1977.

40-76-D-1 McGrew, D. Vocational Placement and Follow-Up. Syracuse, IN: Wawasee Area Vocational Cooperative, 1977.

40-76-D-2 Fruits, D. and Paulin, C. Perry County Vocational Education Student Placement and Follow-Up Project. Cannelton, IN: Perry County Area Vocational Education Program, 1976.

40-76-D-3 Stecyk, M. and Adaska, A. Vocational Student Job Placement and Follow-Up. Hammond, IN: School City of Hammond, 1977.

40-76-D-4 Wheeler, L. BRUTC Placement Review. Shelbyville, IN: Blue River Vocational-Technical Center, 1977.

40-76-D-5 Beyler, M. and Walton, J. Implementing a Student Job Placement System. Fort Wayne, IN: Indiana Vocational Technical College, 1977.

40-76-D-6 Rice, J. Initial Implementation of Job Placement Program. Muncie, IN: Indiana Vocational Technical College-Region 6, 1977.

40-76-D-7 Shaver, C. A Project Designed to Identify the Effectiveness on the Placement Process of Development, Printing and Disseminating a Graduate Booklet. Terre Haute, IN: Indiana Vocational Technical College, 1977.

40-76-D-8 Parker, D. Follow-Up Study: Students Not Completing Degree Requirements. Indianapolis, IN: Indiana Vocational Technical College, 1978.

40-76-D-9 Sievert, N. Implementing a Student Job Placement Service. Indianapolis, IN: Indiana Vocational Technical College, 1978.

40-76-D-10 Macy, B. In-Depth Follow-Up of Graduates from IVTC-Southeast. Madison, IN: Indiana Vocational Technical College-Southeast, 1977.

40-76-D-11 Staley, K. and Hodge, C. Implementing a Student Job Placement Service. Sellersburg, IN: Indiana Vocational Technical College-Southcentral, 1977.

40-76-D-12 Fields, C. Expand Existing Placement and Follow-Up Services to Include Early Withdraw Students and Increase Public Relations. New Albany, IN: New Albany-Floyd County Consolidated School Corporation, 1977.

40-76-D-13 Hixson, J. and Stoddard, R. Implementation of a Job Placement and Follow-Up Service for Area 37. Greenwood, IN: Central Nine Vocational-Technical School, 1977.

40-76-D-14 Davis, C. A System for Job Placement and Follow-Up for the Walker Career Center. Indianapolis, IN: Walker Career Center, 1978.

40-76-D-15 Grostefon, D. Multi-Community Occupational Needs Survey. Logansport, IN: El-Tip-Wa Area Vocational School, 1977.

40-76-D-16 Hoke, R. Implementation of a Job Placement and Follow-Up System at Ben Davis High School. Indianapolis, IN: Metropolitan School District of Wayne Township, 1977.

1977 Projects

33-77-C Clerk, J.W. Special Services Coordinator Involving Screening Placement and Follow-Up of Vocational Students. Evansville, IN: Evansville-Vanderburgh School Corporation, 1977.

5-77-C-10 Piper, D. A Skill Catalog for Curriculum Evaluation and Student Placement. Bedford, IN: North Lawrence Community Schools, 1977.

6-77-D-3 Dressler, D. Project Concern. Indianapolis, IN: MSD of Lawrence Township, 1977.

6-77-D-4 Farnsworth, C. Placement and Follow-Up Project for Area Schools. Garrett, IN: Four County Area Vocational Cooperative, 1977.

6-77-D-5 Belec, D. Development of a Plan to Expand Present Placement System. Gary, IN: Indiana Vocational Technical College, 1977.

6-77-D-6 Moore, W.N., Jr. Creation of a Job Bank. South Bend, IN: Indiana Vocational Technical College, 1977.

6-77-D-7 Reckerd, T. Initial Implementation of a Job Placement Program. Lafayette, IN: Indiana Vocational Technical College, 1977.

6-77-D-8 Zafran, N.J. Selection of a Job Placement and Follow-Up System for Vocational Education Students. Frankfort, IN: Clinton Prairie School Corporation, 1977.

65-77-III-4 Richardson, W.B. Development of an Employer Follow-Up Model of Former Vocational Students. West Lafayette, IN: Purdue University, 1977.

66-77-III-4 Geise, D.C. A Job Placement Center for the Walker Career Center. Indianapolis, IN: Walker Career Center, 1977.

67-77-III-4 Lukens, R.L. Student Placement and Development of Veterinary Technology Performance Based Curriculum. West Lafayette, IN: Purdue University, 1977.

68-77-III-4 Beyler, M.E. Implement a Non-Returning Student Follow-Up Plan. Fort Wayne, IN: Indiana Vocational Technical College, 1977.

69-77-III-4 Poling, H.S. Development and Implementation of a Student Job Placement and Follow-Up Plan. Columbus, IN: Indiana Vocational Technical College, 1977.

70-77-III-4 Parker, D.S. Attrition Follow-Up Study of Selected Occupational-Technical Students. Indianapolis, IN: Indiana Vocational Technical College, 1977.

71-77-III-4 Scott, C.F. Implementing a Non-Returning, Non-Graduating Student Follow-Up System. Sellersburg, IN: Indiana Vocational Technical College, 1977.

72-77-III-4 Wells, J.R. Continuation of the Development of a Comprehensive Job Bank. South Bend, IN: Indiana Vocational Technical College, 1977.

73-77-III-4 Hewlett, H.S. Develop/Implement a Student Job Placement and Follow-Up Plan. Valparaiso, IN: Porter County Career Education Cooperative, 1977.

74-77-III-4 Shaver, C.G. Maintaining a Job Placement Service. Terre Haute, IN: Indiana Vocational Technical College, 1977.

75-77-III-4 Belec, D.P. Establishment of Formal Placement Operation and Follow-Up Activity. Gary, IN: Indiana Vocational Technical College, 1977.

76-77-III-4 Wysong, R.M. Placement and Follow-Up Continued and Expanded. Syracuse, IN: Lakeland Community School Corporation, 1977.

77-77-III-4 Hixson, J.E. Implementation of a Job Placement and Follow-Up Service for Area 39. Greenwood, IN: Central Nine Vocational-Technical School, 1977.

78-77-III-2 Hankenhoff, B. Local Plan to Develop a Job Placement and Follow-Up System. New Castle, IN: New Castle Community School Corporation, 1977.

79-77-III-2 Moore, W.N., Jr. Implement a Student Job Placement System. South Bend, IN: Indiana Vocational Technical College, 1977.

80-77-III-2 Utley, G.L. A Student Tracking Program for Postsecondary Vocational Technical Education. Evansville, IN: Indiana Vocational Technical College, 1977.

81-77-III-2 Goecker, A.D. Study of Job Placement--Postsecondary Agribusiness Graduates. West Lafayette, IN: Purdue University, 1977.

APPENDIX B
LETTER AND MEMO

STATE of INDIANA

State Board of
Vocational and Technical Education

INDIANAPOLIS 46204

401 Illinois Building
17 West Market Street
Indianapolis, Indiana 46204
Phone (317) 232-1810

Dear Colleague:

In an effort to improve impacts of the placement and follow-up programs in our state, Indiana University is conducting a survey for the State Board of Vocational and Technical Education.

As a part of the State Board's guidance and counseling program, the survey purports to identify the status and problems in establishing and operating the placement and follow-up program and to assess the actual and potential impacts of the program upon students, employers, and community development. To achieve this purpose, a questionnaire form has been developed by Indiana University, which is being mailed to vocational administrators and student services personnel at both secondary and post-secondary educational institutions which engage in delivering vocational and technical education programs.

We believe the questionnaire will be useful for us to understand the status and problems and to develop possible solutions and strategies for improving the effectiveness of Indiana's research and development programs in general, as well as the guidance program specifically. We encourage you to participate in the survey and cooperate with the investigator, Dr. Jin Eun Kim, Department of Vocational Education, Indiana University-Bloomington. Your contribution to the survey will be greatly appreciated.

Sincerely,

Don K. Gentry
Executive Officer/State Director
of Vocational Education

INDIANA UNIVERSITY

SCHOOL OF EDUCATION

DEPARTMENT OF VOCATIONAL EDUCATION
Education Building 216
3rd and Jordan
Bloomington, Indiana 47405
812-337-8104
812-337-0141

MEMORANDUM

TO: Secondary Vocational Administrators

FROM: Jin Eun Kim, Project Director

IN RE: Survey on Impacts of the Placement/Follow-Up Program in Indiana

DATE: November 5, 1979

Please find enclosed five copies of a survey form which is designed to collect information regarding the establishment, operation, and impacts of placement/follow-up programs in Indiana:

(1) One copy for administrator

(2) Two copies for two student services personnel, and

(3) Two copies for two teachers.

Would you please take a moment and respond to the questionnaire, using a copy for yourself, and assign each copy to two student services personnel and two teachers who are randomly selected in your school or school system.

A return envelope with stamp is attached to each form so that the individual may return the completed questionnaire directly to the Project Director whose address appeared in the last page of the form.

Your contribution and assistance with this survey will be most appreciated.

JEK:sls

Enclosures

INDIANA UNIVERSITY

SCHOOL OF EDUCATION

DEPARTMENT OF VOCATIONAL EDUCATION
Education Building 216
3rd and Jordan
Bloomington, Indiana 47405
812-337-8104
812-337-0141

MEMORANDUM

TO: Postsecondary Vocational Administrators

FROM: Jin Eun Kim, Project Director

IN RE: Survey on Impacts of the Placement/Follow-Up Program in Indiana

DATE: November 5, 1979

Please find enclosed seven copies of a survey form which is designed to collect information regarding the establishment, operation, and impacts of placement/follow-up programs in Indiana:

(1) One copy for administrator

(2) Three copies for three student services personnel, and

(3) Three copies for three faculty members.

Would you please take a moment and respond to the questionnaire, using a copy for yourself, and assign each copy to three student services personnel and three teachers who are randomly selected in your school or school system.

A return envelope with stamp is attached to each form so that the individual may return the completed questionnaire directly to the Project Director whose address appeared in the last page of the form.

Your contribution and assistance with this survey will be most appreciated.

JEK:sls

Enclosures

APPENDIX C

A SURVEY QUESTIONNAIRE FORM

A SURVEY:
IMPACTS OF PLACEMENT/FOLLOW-UP PROGRAMS IN THE STATE OF INDIANA

The purpose of this survey is to find the status and problems in developing and operating the placement/follow-up program and to assess the actual and potential impacts of the program on students, employers, and community development.

To achieve the purpose, this questionnaire is designed to collect information regarding the establishment, operation, and impacts of placement/follow-up programs in your school or school corporation.

Individual responses will not appear separately in the report, and the results will be used only for research purposes. Your contribution to the survey is sincerely appreciated.

INDIANA UNIVERSITY-BLOOMINGTON

AND THE

STATE BOARD OF VOCATIONAL AND TECHNICAL EDUCATION

STATE OF INDIANA

1. Has a placement/follow-up program for vocational students been established in your school or school system? If there is a program, please fill in the year it was established.

_____ (1) Has been established since year _____

_____ (2) Being established or under planning at the present time

_____ (3) Not applicable or don't know

2. Prior to establishing the placement/follow-up program, what services do you think were provided to the students and/or the community? After the program was established, what services became more available than before for vocational guidance services in your school or school system?

Services	Prior to to the Program	After the Program
(1) Vocational information services	_____	_____
(2) Self-inventory services	_____	_____
(3) Personal data collecting services	_____	_____
(4) Vocational counseling services	_____	_____
(5) Vocational preparation services	_____	_____
(6) Job placement services	_____	_____
(7) Follow-up adjustment services	_____	_____
(8) Occupational research and evaluative studies	_____	_____
(9) Other (specify) _____		
_____	_____	_____
(10) _____	_____	_____
(11) _____	_____	_____
(12) _____	_____	_____

3. If you checked number (1) in question 1, who are responsible for providing job placement/follow-up services? Please check appropriate personnel and estimate their working hours on the fulltime equivalent (FTE) basis.

_____ (1) Program Director(s) _____ FTE

_____ (2) Placement Specialist(s) _____ FTE

_____ (3) Counselor(s) _____ FTE

_____ (4) Other Professional Staff (specify) _____ _____ FTE

_____ (5) _____ _____ FTE

4. In providing the job placement service, what activities are carried out to meet needs for students' self development? Please check as many as appropriat

_____ (1) To assess students' readiness for employment

_____ (2) To prepare students for finding a job

_____ (3) To develop employability skills and competencies

_____ (4) To counsel students in solving problems related to the job or placement situation

_____ (5) Other (specify) _____

_____ (6) _____

_____ (7) _____

5. For students' job development, what activities are carried out? Please check as many as appropriate.

_____ (1) To develop a list of potential employers

_____ (2) To identify job openings within and outside the community

_____ (3) To study needs for employment and available positions

_____ (4) To promote business and industry contacts

_____ (5) To conduct interviews for screening qualified applicants to fit employers' considerations

_____ (6) To provide on-the-job training opportunities

_____ (7) Other (specify) _____

_____ (8) _____

_____ (9) _____

6. In providing the follow-up service, what activities are carried out for student follow-up? Please check as many as appropriate.

_____ (1) To identify graduates' or completers' employment status

_____ (2) To keep recording their work history

_____ (3) To develop materials for student follow-up survey

_____ (4) To survey employed graduates' or completers' job satisfaction

_____ (5) To collect information pertaining to their previous training and work relationship

_____ (6) To survey needs for graduates' or completers' job advancement and/or additional training

_____ (7) To provide counseling for their job adjustments

_____ (8) Other (specify) _____

_____ (9) _____

7. For employer follow-up, what activities are carried out? Please check as many as appropriate.

_____ (1) To develop instruments for employer follow-up survey

_____ (2) To assess employers' needs and market trends

_____ (3) To collect data on the job related skills, knowledge and characteristics

_____ (4) To survey employers' satisfaction with employed graduates' job performance

_____ (5) To organize committees for communication and cooperation between the school and employers

_____ (6) Other (specify) _____

_____ (7) _____

_____ (8) _____

_____ (9) _____

8. In developing and operating the placement/follow-up program, have you received financial support from federal, state, and/or other agencies outside of your own school system or institution?

_____ (1) Yes

_____ (2) No

_____ (3) Don't know

9. If you checked number (1) in question 8, please define the sources of your financial support.

_____ (1) Federal agency: _____

_____ (2) State agencies: _____

_____ (3) Other agencies: _____

10. If you received support, how did you use the money? Please check as many as appropriate, and the degree of helpfulness for the following activities.

		Least Helpful	Somewhat Helpful	Very Helpful	Don't Know
_____	(1) To develop data collection instruments	_____	_____	_____	_____
_____	(2) To purchase relevant materials and instruments	_____	_____	_____	_____
_____	(3) To collect and analyze data	_____	_____	_____	_____
_____	(4) To hire temporary staff	_____	_____	_____	_____
_____	(5) To install placement program	_____	_____	_____	_____
_____	(6) To initiate follow-up program	_____	_____	_____	_____
_____	(7) To organize advisory committees	_____	_____	_____	_____
_____	(8) Other (specify) _____				
	_____	_____	_____	_____	_____
_____	(9) _____	_____	_____	_____	_____

11. For the placement and follow-up program, have you and/or your home institution developed any instruments or materials for use by your school or school system?

_____ (1) Yes

_____ (2) No

_____ (3) Don't know

12. If you checked number (1) in question 11, would you please make a list of instruments and materials and check the degree of usefulness to your knowledge.

Developer and Title	Least Useful	Somewhat Useful	Very Useful	Don't Know
(1) _____				
_____	____	____	____	____
(2) _____				
_____	____	____	____	____
(3) _____				
_____	____	____	____	____
(4) _____				
_____	____	____	____	____
(5) _____				
_____	____	____	____	____
(6) _____				
_____	____	____	____	____

13. In connection with the placement/follow-up program, have you adopted or used any materials and instruments as developed by others outside of your school system?

_____ (1) Yes

_____ (2) No

_____ (3) Don't know

14. If you checked number (1) in question 13, please make a list of materials and instruments, and check the degree of usefulness of each product to your knowledge.

	Developer or Institute and Title	Least Useful	Somewhat Useful	Very Useful	Don't Know
(1)	_____				
	_____	____	____	____	____
(2)	_____				
	_____	____	____	____	____
(3)	_____				
	_____	____	____	____	____
(4)	_____				
	_____	____	____	____	____
(5)	_____				
	_____	____	____	____	____

15. How are the placement and follow-up data and information customarily utilized? Please check as many as appropriate.

_____ (1) To report the information as required to government agencies

_____ (2) To provide decision-makers with information for planning purposes

_____ (3) To assess graduates' performance on the job

_____ (4) To evaluate the effectiveness and relevance of training programs

_____ (5) To promote communication and cooperation between the school and community

_____ (6) To assess the effectiveness of the placement/follow-up program itself

_____ (7) Other (specify) _____

_____ (8) _____

_____ (9) _____

16. What barriers do you think are interfering with the effective operation of the placement/follow-up program? Please check the degree of seriousness of the problems.

	Not Serious	Somewhat Serious	Very Serious	Don't Know
(1) Costs are expensive	____	____	____	____
(2) Quality of information is questionable	____	____	____	____
(3) Needed information is hardly collected	____	____	____	____
(4) Reporting requirements are overloaded	____	____	____	____
(5) Timeliness is inadequate	____	____	____	____
(6) Appropriate instruments/ analytical techniques are limited	____	____	____	____
(7) Data processing system is not available	____	____	____	____
(8) Budget is not enough to hire qualified personnel	____	____	____	____
(9) Legal constraints restrict collecting data	____	____	____	____
(10) Administrative climate of acceptance and support is not favorable	____	____	____	____
(11) The importance of the program is hardly understood by the community	____	____	____	____
(12) Available services are limited to a certain group of students, not to all students	____	____	____	____
(13) Other (specify) _____				
_____	____	____	____	____
(14) _____	____	____	____	____

17. What effects do you think actually resulted from the placement/follow-up program? Please check the degree of effectiveness of the program on the following items.

	Least Effective	Somewhat Effective	Very Effective	Don't Know
(1) To provide more students placement services	____	____	____	____
(2) To improve students' readiness for employment	____	____	____	____
(3) To help more students in finding a job	____	____	____	____
(4) To improve students' employability skills and competencies	____	____	____	____
(5) To increase the rate of job placement of students	____	____	____	____
(6) To provide students with more appropriate information on job openings	____	____	____	____
(7) To identify employment needs and position requirements	____	____	____	____
(8) To improve business and industry contacts with the school	____	____	____	____
(9) To increase students' on-the-job training opportunities	____	____	____	____
(10) To facilitate the screening process for employers' considerations	____	____	____	____
(11) To improve graduates' employment status and performance on the job	____	____	____	____
(12) To increase graduates' job satisfaction	____	____	____	____
(13) To decrease graduates' job turnover	____	____	____	____

		Least Effective	Somewhat Effective	Very Effective	Don't Know
(14)	To increase opportunities for graduates' job advancement and additional training	____	____	____	____
(15)	To improve communication between graduates and students enrolled in the training program	____	____	____	____
(16)	To improve communication and cooperation between the school and employers	____	____	____	____
(17)	To increase employers' satisfaction with employed graduates' job training	____	____	____	____
(18)	To increase employers' satisfaction with employed graduates' job performance	____	____	____	____
(19)	To meet demands for the labor market within the community	____	____	____	____
(20)	To increase the community's understanding of and support for vocational training programs	____	____	____	____
(21)	To improve communication and cooperation among the staff for student services within the school system	____	____	____	____
(22)	To improve an information system for the decision-making and planning for vocational programs	____	____	____	____
(23)	To improve the effectiveness of vocational programs to meet job requirements	____	____	____	____
(24)	To improve a reporting system required by federal and state agencies	____	____	____	____
(25)	To improve vocational educators' accountability to legislators, taxpayers, and parents	____	____	____	____

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18. Would you please make recommendations or suggestions for improving the placement/follow-up program.

(1) _____

_____

(2) _____

_____

(3) _____

_____

X X X X X X X X X X X

Please check one of the options as being applicable to your school, community, and yourself.

1. School or institution at which you work:

_____ (1) Comprehensive High School

_____ (2) High School

_____ (3) Area Vocational School

_____ (4) Postsecondary Institution

2. Your status or responsibility:

_____ (1) Vocational Director

_____ (2) Director for Student Services

_____ (3) Director for Placement/Follow-Up

_____ (4) Placement Specialist

_____ (5) Faculty

_____ (6) Counselor

_____ (7) Other _____

_____ (8) _____

----------THANK YOU----------

Please use the enclosed stamped envelope and return the completed questionnaire to:

Dr. Jin Eun Kim
Department of Vocational Education
Indiana University
Education Building, Room 216
Bloomington, IN 47405

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REPORTS FROM THE COST-EFFECTIVENESS STUDY PROJECTS

Kim, J.E. & Harris, R.C. *A cost-effectiveness analysis model for secondary vocational programs: Technical report.* Bloomington, IN: Indiana University, 1976. (ED 130 081, CE 008 487)

Kim, J.E., Harris, R.C., & Ruby, D.D. *Cost-effectiveness analysis of secondary vocational programs: Administrator's manual.* Bloomington, IN: Indiana University, 1976. (ED 130 082, CE 008 488)

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Kim, J.E. *A cost-effectiveness/benefit analysis model for postsecondary vocational programs: Technical report.* Bloomington, IN: Indiana University, 1977. (ED 151 560)

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Kim, J.E. *Impacts of research and development: Vocational placement and follow-up programs in Indiana.* Bloomington, IN: Indiana University, 1980.